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REAUTHORIZATION OF THE FISH AND WILDLIFE CONSERVATION ACT OF 1980

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

SECOND SESSION

ON

S. 2272

A BILL TO AUTHORIZE APPROPRIATIONS TO CARRY OUT THE FISH AND WILDLIFE CONSERVATION ACT OF 1980 FOR FISCAL YEARS 1989 AND 1990

APRIL 27, 1988

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REAUTHORIZATION OF THE FISH AND WILDLIFE CONSERVATION ACT OF 1980

WEDNESDAY, APRIL 27, 1988

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:10 a.m., in room 406, Dirksen Senate Office Building, Hon. George J. Mitchell (chairman of the subcommittee) presiding.

Present: Senators Mitchell, Graham, Chafee, and Durenberger.

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator MITCHELL. Good morning, ladies and gentlemen. The Subcommittee on Environmental Protection convenes today, first, to review our efforts to conserve more than 1,800 fish and wildlife species nationwide that are neither managed by States for recreational or commercial purposes nor protected under the Federal Endangered Species Act. These species often are referred to collectively as nongame.

Our second related purpose this morning is to examine the importance of implementing the Fish and Wildlife Conservation Act of 1980 in the conservation of these nongame species.

The Congress passed this act to encourage a Federal/State partnership in developing comprehensive management plans to benefit all fish and wildlife species. However, no money for development of these plans has ever been requested by the Administration or appropriated by Congress.

The act also required the U.S. Fish and Wildlife Service to determine the most equitable and effective mechanism to provide Federal matching funds to the States for carrying out the comprehensive conservation plans.

The Service completed this study in 1984 but did not recommend any initiative for raising matching funds under the act. So far, Congress has been similarly unsuccessful in identifying a source of revenue.

As a result, little progress has been made toward carrying out the provisions of the Fish and Wildlife Conservation Act in the decade since its enactment.

Instead, the States have had to raise what money they can from other sources. The States have been highly creative in developing

funding mechanisms for fish and wildlife not subject to hunting or fishing, but these revenues were intended to complement anticipated Federal matching funds, not replace them.

The Endangered and Nongame Wildlife Project in Maine, for instance, is funded principally from Maine's "Chickadee Checkoff", a voluntary contribution line on the State's income tax form.

With these revenues, and some limited Federal matching funds under section 6 of the Endangered Species Act, the Department of Inland Fisheries and Wildlife is responsible for keeping track of the State's 400 nongame species and for saving its most endangered wild animals.

The results in Maine and throughout the country are that few resources are available to monitor and protect the many other wildlife species that are not protected by the Federal endangered species program to ensure that these animals always will be residents of our States.

The principal questions before us today, which I have asked the witnesses to address, concern the consequences of not going forward with a cooperative Federal/State program for the conservation of all fish and wildlife species.

These questions are as follows:

Is the conservation of nongame fish and wildlife suffering? Are there declines in the numbers of these species that could be prevented by implementation of the Fish and Wildlife Conservation Act?

Could we avoid the need to list species under the Endangered Species Act if we channel resources toward comprehensive fish and wildlife conservation?

What benefits for fish and wildlife and for the people of this country could be realized through implementation of the 1980 act?

How necessary is carrying out the 1980 act ot the development and maintenance of effective Federal/State cooperative programs for the comprehensive conservation of fish and wildlife species?

If there is a need for more comprehensive conservation of fish and wildlife species, and if the 1980 act is the most appropriate mechanism for meeting this need, how then are we going to provide the required funding to put the act into effect?

Finally, in addition to these questions, I want to explore with the U.S. Fish and Wildlife Service this morning the extent of that agency's efforts to fulfill its responsibility to monitor and conserve songbirds and other nongame migratory birds.

Our witnesses today include representatives not only from the Service but also from the State fish and wildlife agencies of Florida, Maine, New York, Wyoming, and from private conservation organizations.

I welcome you all and look forward to what you have to say.

Our first panel of witnesses includes Ronald Lambertson, Assistant Director, Fish and Wildlife Enhancement, U.S. Fish and Wildlife Service; Stanley Senner, Executive Director of the Hawk Mountain Sanctuary Association of Kempton, Pennsylvania; Albert Manville, Wildlife Biologist with Defenders of Wildlife in Washington, D.C.; and Douglas Inkley, Wildlife Resource Specialist with the National Wildlife Federation, Washington, D.C.

Good morning, gentlemen. Welcome. We look forward to your testimony. I will restate for your benefit the rules of procedure of the subcommittee. Your written statements will be placed in the record in full. We ask that you confine your oral remarks to a five-minute summary of the points which you regard as most significant and leave some time for questions and exchange of views among the witnesses.

The panel of lights immediately before me will help guide you in the time. The red light means stop, the orange light means think of stopping, the green light means you can keep right on going.

Welcome, Mr. Lambertson. We look forward to hearing from you, as always.

STATEMENT OF RONALD E. LAMBERTSON, ASSISTANT DIRECTOR, FISH AND WILDLIFE ENHANCEMENT, U.S. FISH AND WILDLIFE SERVICE

Mr. LAMBERTSON. Thank you, Mr. Chairman. I appreciate the opportunity to discuss reauthorization of the Fish and Wildlife Conservation Act of 1980 with you this morning. The bill before you, S. 2272, would reauthorize appropriations through Fiscal Year 1990. In addition, you asked that we address some specific issues related to our efforts in this regard.

We cannot support enactment of this bill due to the budgetary constraints and initiatives both at the State level and the Fish and Wildlife Service level.

We are fully cognizant of the need to give management attention to nongame resources. In 1980, for example, we are aware that nongame species were the object of specific recreational pursuits by approximately 83 million Americans, 16 years of age and older. By 1985, the number stood at more than 109 million Americans, and it continues to grow today.

Currently, Federal grants are being made available to the States through the Federal Aid in Wildlife Restoration and the Federal Aid in Sport Fish Restoration activities to address the needs of game birds and mammals and sport fish. Nongame species do benefit from these activities.

Additionally, the States have moved to generate non-Federal funds sufficient to begin this important undertaking. Our most recent information indicates that 49 of the 50 States now direct at least a portion of their budgets to nongame activities.

Following this act's passage in 1980, certain of its provisions were incorporated into the operating procedures for the Sport Fish Restoration and Wildlife Restoration programs. Thus, the planning standards set forth in this act have become the standards for the 23 States that are conducting fish and wildlife planning under these programs. A number of additional States are engaged in planning nongame conservation activities designed to meet their own needs.

Let me now turn to the questions relating to the act that you presented.

As a prologue, it is important to note that the questions contained in your letter indicate that the act has not been implemented. True, no Federal appropriations have been made under the act

to reimburse States for development or implementation of conservation plans for nongame species. Yet, the goal stated in the act, that each State should be encouraged to develop, revise, and implement, on consultation with Federal, State, and local and other agencies, a plan for the conservation of fish and wildlife, particularly those species which are indigenous to the State. That objective has been met to some extent.

As stated above, 49 States have some sort of a nongame conservation program, and 23 of the States have actually carried out the planning responsibilities set forth in that act.

Let me turn now to the other specific questions.

First, with the advantage of hindsight, it would be very difficult to categorically state that implementation of the act would have prevented the decline of any particular species. However, on the presumption that significant Federal resources had been made available to the State, those resources could have provided funding for management measures such as control devices for manipulating water levels to benefit marsh birds, ways to secure habitat for herons and other colonial nesting birds, and nesting structures for habitat-limited species, such as barn owls.

Secondly, the primary benefit to be gained from Federal reimbursement for State nongame conservation programs is that we would expect species to be removed from the list of those that are declining. This, we believe, could in the long run offset to some degree Federal and State costs for protection of endangered species.

Thirdly, as far as helping to develop and maintain stable and effective Federal/State cooperative programs is concerned, such coordination has already been established under the Sport Fish and Wildlife Restoration programs.

Although nongame coordination is not totally complete, there is good coordination now between Federal and State agencies with regard to the Fish and Wildlife Restoration programs.

Finally, we do not have any suggestions for a funding mechanism at this time. As we stated in our February 8, 1985 letter to Congress, the study required by the act was presented and does give some recommendations. However, because of the current fiscal situation, we cannot recommend funding at this time.

Mr. Chairman, we do have some information on currently what the Fish and Wildlife is doing. Primarily our efforts in nongame is directed towards migratory birds. At this time we anticipate that about $2.5 million will be spent over the next year for research and about $1 million for nonresearch management activities relating to nongame migratory birds.

At this time we are also preparing a list of migratory birds of management concern. These are migratory nongame birds that are declining, and that list is currently available and contains about 30 species.

Likewise, we have prepared a nongame strategy plan that we hope to have out this summer. That plan will set forth a strategy for working with States and other organizations to take care of nongame species.

That concludes my statement, Mr. Chairman.

Senator MITCHELL. Thank you, Mr. Lambertson.

Mr. Senner.

STATEMENT OF STANLEY E. SENNER, EXECUTIVE DIRECTOR, HAWK MOUNTAIN SANCTUARY ASSOCIATION, KEMPTON, PA

Mr. SENNER. Thank you, Mr. Chairman. My name is Stanley Senner. I am representing the Hawk Mountain Sanctuary Association.

Although the major purpose of the Fish and Wildlife Conservation Act is to assist the States in their nongame programs, the act explicitly encourages the Federal Government to use its authorities to conserve nongame species.

I was invited to address the question of the adequacy of Federal programs to conserve migratory birds that are neither hunted nor endangered.

Since passage of the Migratory Bird Treaty Act, conservation of these species has been a Federal responsibility. More than 90 percent of our 832 species of birds covered by the treaties are in fact not ordinarily hunted, nor are they endangered. Populations of most of these species are rather common, even abundant—in the millions.

However, we have learned the hard way that abundance is no guarantee against extinction. Protecting birds while they are still common makes a great deal of sense, and as a conservation strategy, prevention is far more effective and less costly to government and industry than is the saving of species on the brink of extinction.

Unfortunately, due to a combination of tradition, orientation, and budgetary limitations, present Federal efforts directed toward these species are such that if it is not hunted or endangered, it gets virtually no attention. The prevailing Federal philosophy has been that if birds are protected from harvesting, then they will prosper.

To be sure, nongame birds have benefited from efforts directed at hunted and endangered species. The acquisition of wetlands, for waterfowl for example, benefits nongame species.

But declines in populations of many familiar species of birds suggests that this passive approach to conservation is not enough. As Mr. Lambertson said, the Service has recently identified 30 bird species that they consider to be declining and warranted national concern. The staggering thought is that 407 species of birds, nearly half of our avifauna were considered for inclusion on that list.

Since 1965, the primary Federal program for monitoring birds has been the Breeding Bird Survey. It is a model program. Unfortunately, it only covers about 250 species of birds. In addition, the Service has barely begun to exploit the full potential of those data.

They occasionally have funded other projects that address species not monitored by the Breeding Bird Survey, but those projects have never been part of a coherent strategy.

One might ask whether the necessary research and monitoring can be done by State agencies and private organizations and universities. The answer is that in many cases it can, but by their very nature migratory birds—and an effective program for their conservation—must be national and international in scope.

The present lack of national direction exacerbates problems, and I can offer examples of that. As a result, scarce resources are not

not always used wisely, and the results may or may not provide the information we need.

A comprehensive program must not only detect declines and conduct research before species are endangered, there must be a commitment and a structure that translates those results into action.

Through the North American Waterfowl Plan, Migratory Bird Coordinators, Flyway Councils, and others, the Service, from the director on down, provides national leadership and coordination for the conservation of hunted species. There is nothing remotely comparable to that structure for nongame birds.

I have identified a number of elements that I believe constitute a successful Federal program, and I'll not detail them here. Suffice it to say that there are bits and pieces of that program in place in the Service. Most of all, what is lacking is commitment and leadership; commitment to provide even minimal resources to do the job in a comprehensive way.

The price tag is remarkably low, because so much of the work can be accomplished by volunteers. In my written statement I have given several examples. One is the International Shorebird Survey. It costs a private organization only $50,000 a year to monitor shorebirds at 600 sites across eastern North America, including a number of national wildlife refuges. For another $50,000, it could be continental in coverage.

The total price tag is about $4 million annually by my estimates, although it is very hard to get a specific handle on that.

Last year Congress did appropriate $1 million for research and management of migratory birds. This was an add- on. They directed that the Service prepare a plan for management of these species. We are very encouraged by their efforts, but we do note that it wouldn't have happened had Congress not directed it to be done.

Since one of the purposes of this act is to encourage Federal efforts we would encourage you to take the opportunity of the reauthorization of the act to give the Federal Government additional guidance for how they might conserve migratory nongame birds.

Our goal here is to conserve the diversity of wildlife that is our national heritage. In doing so, we do not recommend that we diminish the attention to endangered or hunted species, simply that we believe that an ounce of prevention is worth a pound of cure, and we must therefore increase efforts directed at the nongame and nonendangered species.

Thank you.

Senator MITCHELL. Thank you, Mr. Senner.

Dr. MANVILLE.

STATEMENT OF ALBERT M. MANVILLE, WILDLIFE BIOLOGIST, DEFENDERS OF WILDLIFE

Mr. MANVILLE. Thank you, Mr. Chairman.

I am Albert Manville, Senior Staff Wildlife Biologist for Defenders of wildlife. I also chair a loose-knit consortium of wildlife and conservation groups called the Nongame Coalition. Stan Senner and Doug Inkley are also participants in that coalition. I have been asked to request an extension of the hearing record to be open for two weeks. Would that be possible?

Senator MITCHELL. Certainly.

Mr. MANVILLE. Thank you.

Senator MITCHELL. In whose behalf do you make the request?

Mr. MANVILLE. That would be on behalf of the Wilderness Society. They would like to submit comments.

Senator MITCHELL. It will be open for anybody who wishes to make additional comments.

Mr. MANVILLE. I have with me today Sarah Vickerman, our Regional Program Director, from Portland, Oregon, and our State Nongame Specialist, and our Northeast Field Representative, Karen Woodsum from Wayne, Maine.

Senator MITCHELL. Do you think that gives your remarks added weight, Dr. Manville?

Mr. MANVILLE. No comment, sir.

Our testimony this morning is presented on behalf of the Defenders, the Sierra Club, and the Wildlife Center of Virginia.

Since you have already mentioned the questions that you have asked me to address this morning, I won't repeat them. I will, however, say since the Fish and Wildlife Conservation Act was authorized in 1980, some 89 domestic vertebrate species have become listed as endangered species since that time. There, of course, are scores more that are candidates for listing, and I've appended a table at the back of my testimony including nongame migratory birds which are in trouble. If something isn't done, those species, including one species in your State, could indeed become listed as endangered species. So I guess the bottom line is we need to seriously look at funding for this Act.

Now, to the first major series of questions. What are the major problems with the majority of our wildlife, especially in relation to what has not happened without funding for the Fish and Wildlife Conservation Act?

(1) Toxic chemicals, pesticides, contaminants; marine plastic pollution; habitat destruction, degradation, fragmentation; road building; land development; and on and on. These are all problems, of course, that have negatively impacted wildlife. Loss and degradation of habitat are, of course, the greatest threats to all wildlife.

We feel that implementing and funding the Fish and Wildlife Conservation Act will do much to deal with these problems.

(2) Less than 10 percent of the funding for wildlife programs has, again, been expended on approximately 90 percent of our Nation's wildlife.

(3) Of the over 3,500 wildlife species in North America, their population status and habitat conditions are generally either uncertain or simply unknown. This is abominable. We must deal with this.

(4) States struggle to bring seriously jeopardized animals back from the brink of extinction, and unfortunately, by necessity, neglect most other species. Of course, they also put efforts on high visibility species for reasons of fundraising and what have you. Meanwhile, the majority of other species get little or no attention whatsoever.

(5) While states are attempting to manage wildlife, the myriad of species needing analysis, surveying or even censusing becomes

mind-boggling. The record clearly indicates, in our opinion, that states are unable to manage wildlife alone.

(6) Lastly, we have a huge constituency out here—in 1985 there were 110 million Americans, the majority of the adult population, which photographed, fed or watched wildlife, as you are well aware, and bird watching is currently ranked as one of this country's most popular outdoor recreational activities.

We have a group of people here, the majority of the American public, which is untapped. It is a resource which unfortunately is not particularly vocal, nor is it well organized, but it is important to remember.

Now, to the second major question. What do State nongame programs need?

(1) Every State needs a comprehensive management plan to prevent the depletion of indigenous species. A plan, of course, is worthless if it doesn't have funds to back it up.

(2) Research efforts must include monitoring populations over time to identify downward trends, determine the most significant mortality factors that are impacting those populations, and of course conduct habitat inventories to identify critical lands for either acquisition or protection.

(3) After critical habitats are identified, States must take the necessary steps to protect them. This is absolutely essential.

(4) Wildlife recreation programs must be given more serious consideration in this country. Approximately $14 billion were accrued annually from these activities.

(5) State fish and wildlife agencies need more staff trained in marketing and public relations. Of course, the terminology, "nongame", as you have mentioned in the past, has got to go. We've got to come up with some sort of new logo, whatever that might be.

(6) Most nongame and endangered species programs are unfortunately seriously understaffed. We would like to see staff, including a program manager, assistant manager, natural resource policy analyst, policy assistant, public information specialist, so on and so forth. That's detailed in my testimony.

Lastly, let me address funding needs for nongame programs. Based on the approach that I've just described above for state needs, we feel the need and recommend a funding mechanism that would provide at least $100 million annually to do this. Now, this may be pie-in-the-sky, but we are very serious about that, and we would like you to seriously consider it, however that may be possible.

As you are well aware, the GAO has come out with two recent reports. One we find very encouraging is that which deals with a redirected fuel tax on lawn and garden equipment. This tax is a tax, again, on fuel. It's not on the equipment, of course, and it has a logical relationship with nongame fish and wildlife.

(1) The tax would be redirected from nonhighway-related use——

Senator MITCHELL. Would you summarize?

Mr. MANVILLE. Okay. (2) of course, it would serve as a mitigation fee because some of this equipment does negatively impact wildlife. We strongly support it.

I would say on the question in regard to voluntary mechanisms, such as a semipostal stamp or a nongame stamp analogous to the

duck stamp, that we would only support this if it were a supplement to a permanent funding mechanism such as a redirected tax, but not as a sole-source funding mechanism.

That essentially summarizes my comments.

Thank you, sir.

Senator MITCHELL. Thank you, Dr. Manville.

Dr. Inkley.

STATEMENT OF DOUGLAS B. INKLEY, WILDLIFE RESOURCE SPECIALIST, NATIONAL WILDLIFE FEDERATION

Mr. INKLEY. Thank you, Mr. Chairman.

The NWF has endorsed the Fish and Wildlife Conservation Act ever since it was first proposed many years ago. We continue to support the act and strongly urge Congress to find funding for it.

The absence of funding for the act since its passage in 1980 has prevented the States from taking the actions necessary to reverse the decline of this Nation's fish and wildlife resources.

I would like to give just two examples of many that are possible of declines in wildlife species that could potentially be reversed by funding the act.

The first example, already cited by Mr. Lambertson and Mr. Senner, is the Fish and Wildlife Service's recently completed report on migratory nongame birds of management concern. Fully, over 53 percent of the nongame birds in the United States, and protected by the Migratory Bird Treaty Act, were nominated for this designation as a species of management concern because of concern over their population status.

In another study with more recently available statistical data, the Fish and Wildlife Service documented that of the bird species studied for significant population trends, fully 23 percent of these species had declined.

Mr. Chairman, these are just two examples. If sufficient data were available for other vertebrate groups, the story would be much the same.

Failure to implement the act has the potential to be very costly in terms of both loss of wildlife and dollars. In 1987 the Fish and Wildlife Service listed under the Endangered Species Act the second highest number of species since 1979. Obviously the tide has not been turned. Species continue to become endangered or threatened at an alarming rate.

As has previously been mentioned, recovery programs are expensive. By conserving wildlife before it becomes necessary to implement costly and intensive recovery programs, dollars can be saved.

Not only does wildlife stand to benefit from funding the act, but the American public stands to benefit too. The public has expressed a very strong interest in the conservation of nongame fish and wildlife and would thus benefit from its passage and funding.

Renowned researcher, Dr. Stephen Keller, of Yale University, in a study for the Fish and Wildlife Service concluded, and I quote: "Wildlife is not just the concern of an esoteric and elitist minority, but instead has broad appeal to many, if not most, Americans." The impression Dr. Keller received was that an abundant, diverse,

and healthy wildlife population contributes in the minds of many to a high standard and quality of life.

That wildlife is important to the public is further demonstrated by the draft results of the 1985 hunting and fishing survey. This survey, as you know, was conducted by the Fish and Wildlife Service. Fully, 61 percent of the adult Americans, it was determined in that survey, engaged in nonconsumptive activities, the primary purpose of which is to enjoy wildlife.

Funding the act will provide the States with critical funding and important directions that are otherwise lacking. Already the act has encouraged some States to develop comprehensive fish and wildlife management plans, and nearly all States have developed some type of nongame program. However, this has not been enough. Nongame programs are severely underfunded.

In a recent National Wildlife Federation survey completed in 1987, the States identified Federal funding needs of $66 million annually.

The National Wildlife Federation urges this committee to closely examine possible alternatives for funding the act. We believe there are several viable options.

One such option is appropriation of general revenues. The National Wildlife Federation has supported appropriation of general revenues but, as you know, has been unsuccessful at this point in time.

Federal excise taxes modeled after the very successful Federal aid and wildlife and fisheries restoration programs are another good possibility.

Another option is use of that portion of the Federal fuels tax which is derived from gasoline sold for purposes other than travel on the Nation's highways.

The NWF believes that revenues from the sale of semi-postal stamps could generate a portion of the funds needed for the act.

Finally, another one of the most viable options is revenues from mineral development acquired lands of the United States.

These options deserve special examination by this committee, and we would be happy to work with this committee towards this end.

In conclusion, Mr. Chairman, this great Nation was blessed with tremendous wildlife resources. We urge the Congress to act now so that future generations of Americans, the inheritors of our fish and wildlife legacy, can enjoy these wildlife resources. We urge you not to let America's wildlife heritage slip away.

Thank you.

Senator MITCHELL. Thank you, Dr. Inkley.

Mr. Lambertson, I would like to begin the questioning with you. I understand that in 1982 the Service prepared a list of 28 migratory nongame bird species which showed evidence of decline in numbers warranted management concern. Four of those species, I believe, have now been listed as endangered under the Endangered Species Act. By 1987, the Service list of migratory nongame birds warranting management concern had grown to 30, exclusive of the four now listed as endangered.

My first question to you is, what conservation actions have been taken or are planned as a result of the 1987 list to prevent the 30

migratory nongame birds of concern from declining further to the point where they too have to be listed under the Endangered Species Act?

Mr. LAMBERTSON. Mr. Chairman, you mentioned the list. That list explains the status of those nongame birds.

In order to coordinate and better carry out management actions for those species, our Migratory Bird Office currently has underway the preparation of a document entitled Nongame Bird Strategies. This document, which we hope to be available in early summer, will set forth national strategies to address the problems currently confronting nongame birds.

A number of those strategies have already been mentioned here. One is to coordinate all of the existing activities that are currently going on with volunteer organizations, and State and Federal agencies to be sure that there is one combined effort nationwide for these nongame birds.

The second is to continue to assess the status of nongame bird populations to be sure that we have a current understanding of those populations.

The third is to determine what causes the reductions in these species, and what is the impact of that reduction. Is it primarily habitat, contaminants, etc. So the third strategy would be to undertake an effort to determine what is causing the declines.

The fourth would be more of a public relations strategy to help people understand the importance of these birds and their relationship to habitat. Now as I mentioned, this is merely a draft strategy. It is not yet available, but the Service is very busily engaged in that.

Senator MITCHELL. Well, it is heartening that a plan is to be published. What have you been using for guidance in the absence of a plan?

Mr. LAMBERTSON. Well, in the absence of the plan in the past, it has been more of an ad hoc determination. As was mentioned, Congress in 1988 gave us $1 million. A good portion of that money is currently being spent just to find techniques to determine what is happening with these bird species. With waterfowl and game species, wildlife managers have been working for many years to determine survey techniques and other means of determining how well the populations are doing. However, with nongame species, many of the survey techniques have not yet been developed, or we only have fragmented techniques. So a good portion of that money is going towards the development of good, logically, scientifically sound techniques so that we can determine the status of these populations.

Senator MITCHELL. I think one of the problems I have, Mr. Lambertson, is the interpretation of the act which the Administration has, as set forth in your statement. I think we have a rather fundamental difference there on how we view the responsibilities under the act.

On page 2 of your statement, and I think it's worth reading, because it really does represent their difference of opinion—I am going to read it and then ask you and the other members of the panel to comment on it.

You say, about two-thirds of the way down, the paragraph beginning, "In summary." You say:

> The act clearly recognized that the development and implementation of nongame conservation plans is primarily a State responsibility and envisioned Federal reimbursement to the States for their expenses in this area. We fully concur in the assignment of responsibility to the States under the act, and the facts demonstrate that the States have proceeded to initiate steps to carry out that responsibility. Given the fiscal condition of the Federal Government, however, especially when compared to the fiscal status of the States, we cannot for the foreseeable future endorse Federal reimbursement to the States for fulfilling their responsibilities in conserving nongame species. Only in this sense has the act not been implemented, and we support this outcome.

That's the end of the quotation from your statement.

I must say that I do not share that analysis of the act. I think it is clearly intended to be a cooperative effort with joint responsibilities as between the Federal and State governments as opposed to the States having exclusive responsibility with the Federal role being limited to that of reimbursement of monies expended. That's your view, and it is rather clearly stated. I appreciate that.

Let me first ask the other members of the panel if they agree with your analysis, and then, Mr. Lambertson, I'll ask you to comment further on that.

Mr. Senner.

Mr. SENNER. No, sir. I would agree with your analysis. Rather clearly in the area of migratory birds the bulk of the responsibilities going back to 1918 has been a Federal responsibility. We strongly envision a cooperative effort that involves a major share of Federal leadership.

Senator MITCHELL. Dr. Manville?

Mr. MANVILLE. I would echo my colleague, Mr. Senner's, comments, and also say that essentially the track record from the states' standpoint has been dismally a failure, unfortunately, and it is essentially due to not only lack of funding but lack of direction from the Fish and Wildlife Service.

Now, granted, the Fish and Wildlife Service has jurisdiction over migratory birds only, plus endangered species of course, but the Service has a responsibility to share their capabilities in managing wildlife with the states and help them coordinate. They just simply haven't done that. So I would concur with your analysis of the situation.

Senator MITCHELL. Dr. Inkley?

Mr. INKLEY. Thank you. I would agree with your analysis that indeed the Fish and Wildlife Conservation Act is meant to be a cooperative effort. I think the Fish and Wildlife Service has an excellent opportunity to provide leadership.

They have already done so very successfully in the Pittman-Robertson and Dingell-Johnson programs. I think we should use those programs as models for which to follow with the Fish and Wildlife Conservation Act.

Senator MITCHELL. Mr. Lambertson?

Mr. LAMBERTSON. Yes. Mr. Chairman, the 1980 act was basically a two-step process. The first step was to work with the States to encourage them to develop plans. We have worked very closely with the States and encouraged them to develop those plans for nongame. We now have 35 States actively involved in planning for

wildlife management. Of those, 23 States very specifically address nongame.

The second half of the equation was to be that there was going to be funding to implement these plans. That funding has never come forth. As we mentioned, a study was done to identify possible sources of funding, but no final action has ever been taken to fund nongame.

I think that is the crux of the issue. We can work with the States. The States are very anxious to work with us on planning for nongame, but the bottom line is, there has to be a funding source.

The successful current programs for fish and wildlife are the user pay programs such as those that we have for fish restoration and wildlife restoration. At the current time, the hunters and fishermen of this country pay approximately $250 million a year that goes to State agencies for game species.

I think the challenge is to find a similar reliable source of funding for nongame. We can do the planning, but I don't think any of us should count, under the current budget deficit situation, on the Treasury to support the funding of that. I think a user pay concept is going to have to be developed, and if this program is going to be successful like the P-R and Wallop-Breaux programs, it is going to have that dedicated funding source.

Senator MITCHELL. I don't disagree with that last statement, but as I understood your opening statement, you are opposed to development of any other funding source at the Federal level.

Mr. LAMBERTSON. Well, as you know, the current Administration position is that no additional obligation should be incurred.

Senator MITCHELL. Well, what you are saying is that in order for the act's purposes to be fulfilled, there must be an additional independent funding source. At the same time you are saying you are against any additional independent funding source.

Mr. LAMBERTSON. Mr. Chairman, my point is, we can do all kinds of cooperation, we can do all kinds of planning. But until there is some user pay concept developed, a concurrence with Congress and the user groups on that, I don't think there is going to be a successful program. That's my personal view.

Senator MITCHELL. Right. And you oppose the development of any such funding. Therefore, you are saying if your position prevails, the act cannot be successfully implemented.

Mr. LAMBERTSON. Yes, Mr. Chairman. The Administration's position is very clear on additional funding obligations at this time.

Senator MITCHELL. Well, I think that's about as clear as it can be as to what the Administration's position is.

Gentlemen, I may have several other questions, if so, I will submit them to you in writing. As indicated, the record will remain open for two weeks. I ask you to respond to them at your earliest opportunity. Thank you very much for coming.

Thank you, Mr. Lambertson.

The next panel includes Allan Egbert, Assistant Executive Director of the Florida Game and Fresh Water Fish Commission, Bob Oakleaf, Nongame Coordinator of the Wyoming Game and Fish Department, William Vail, the Commissioner of the Maine Department of Inland Fisheries and Wildlife, and Herbert Doig, Interna-

tional Association of Fish and Wildlife Agencies, and Assistant Commissioner for Fish, Wildlife and Marine Resources of the New York Department of Environmental Conservation.

Good morning, gentlemen. We appreciate your coming. I believe all of you were here and heard my description of the rules under which the committee operates. I ask you to adhere to those rules.

We will begin with Dr. Egbert. Welcome. We look forward to hearing from you.

STATEMENT OF ALLAN L. EGBERT, ASSISTANT EXECUTIVE DIRECTOR, FLORIDA GAME AND FRESH WATER FISH COMMISSION

Mr. EGBERT. Thank you, Mr. Chairman. Thank you very much for this opportunity to comment on implementation of this most important legislation.

The Game and Fresh Water Fish Commission is responsible for the conservation of wild animal life and fresh water aquatic life in Florida. We have a long history of commitment to the comprehensive management of fish and wildlife, regardless of its classification. Our agency's mission statement speaks to management of fish and wildlife and their habitats to provide sustained benefits to people, whether those benefits be recreational, educational, aesthetic, or economic. We take our mission statement very seriously and, quite frankly, are proud of our accomplishments.

We still support the only population of large wildcats east of the Mississippi River. We sustain sufficient numbers of bald eagles and ospreys in Florida such that we can assist other States in their efforts to try to reestablish these species. We helped Louisiana restore its State bird, the brown pelican, as long ago as the 1960's. But, we don't want to lose what we've got.

Since 1980 we've had seven species added to our endangered species list. Thirty-six kinds of animals are now listed as endangered in our State. We lost one species to extinction in 1987, the dusky seaside sparrow.

Over a 15-year period, beginning in the late sixties, about 20 percent of our breeding birds have significantly decreased in number. The birds we are losing are familiar ones, including our State bird, the mockingbird. Thirty percent of our birds that rely on cavities and trees, including eastern bluebirds, are going downhill. Mammals, reptiles, amphibians may be faring even worse than birds.

Speedy implementation of the Fish and Wildlife Conservation Act of 1980 might not have necessarily allowed us to alter those facts in those eight years since 1980. Even so, in Florida we have learned very clearly that a basic knowledge of status is an absolute prerequisite to proactive management. Concrete and credible information clearly make difficult decisions easier. We would be years ahead in monitoring the status of fish and wildlife and would now be taking positive management steps to conserve those species had the act been fully implemented in 1980.

In truth, in Florida we expect the declines to continue. Implementation of the 1980 act would not have changed the fact that Florida has and continues to be a powerful magnet for people and for business.

We also know we can reduce, and on some occasions we can even minimize, the adverse impacts that growth and development have on fish and wildlife.

Unfortunately, our greatest need in Florida for fish and wildlife continues to be basic knowledge. How secure is a species? Is it increasing, is it decreasing, is it holding its own? Where is it found? What is its distribution? What are its basic requirements for survival?

One of the most difficult problems resource professionals face is to adequately convey to those who should know what it takes to preclude species population declines before circumstances reach the desperate stage.

Our people, our citizens well appreciate that abundant wildlife contributes significantly to their quality of life. We have also learned that wildlife related activities contribute tremendously to our economy. Over six million adults, more than two-thirds of our residents, engage in bird watching, bird feeding, and other wildlife related activities. These individuals spend upwards of $1.3 billion annually on these pursuits.

The total fish and wildlife based recreation, which includes traditional hunting and fishing, pumps $5.2 billion into our State's economy each year. Fish and wildlife are big business in Florida.

Like other States, we were very anxious to participate in a Federal grant program for nongame wildlife management following passage of the 1980 act. In 1983 our legislature passed Florida's Nongame Wildlife Act which provided monies, some limited monies, and outlined direction.

Throughout our discussions on this legislation as we tried to get it passed, we pointed out to our State legislators the promise of additional financial assistance made possible by the Fish and Wildlife Conservation Act. Our recurring expenditures will outstrip income to our State Nongame Trust Fund possibly as soon as 1990. At that time, without Federal matching funds, not only will we be unable to undertake needed program expansion, but we will have to pare back our current programs.

We would welcome the prospect of an effective State/Federal program in Florida that would result in a wide ranging fish and wildlife conservation effort, but we would of course insist on being full partners. Our current budget for nongame wildlife is about $1.5 million annually. Conservatively estimated, we spend another $2 million on enforcement and other activities that relate strictly to those animals classified as nongame.

We predict that we could use in the neighborhood of $2 million to $3 million annually over the next five years at least to meet our needs. Unfortunately, we can offer no suggestions for mechanisms for funding the act beyond those that are already under review. From our experience, we suggest that the appropriate funding source is one that is tied, either directly or indirectly, to the resources themselves, and above all, it should be adequate, it should be stable, it should be reliable and predictable.

Our wildlife deserve no less and, frankly, our public demands no less.

Thank you, Mr. Chairman.

Senator MITCHELL. Thank you, Dr. Egbert.

Mr. Oakleaf.

STATEMENT OF BOB OAKLEAF, NONGAME COORDINATOR, WYOMING GAME AND FISH DEPARTMENT

Mr. OAKLEAF. Thank you, Mr. Chairman, for the opportunity to testify today on the Fish and Wildlife Conservation Act of 1980. I am here representing the Wyoming Game and Fish Department. Wyoming is unique in that most of the species that occurred in the Rocky Mountain region in the early 1800's still exist in the State today. Yet, over 60 species of birds and mammals alone have been identified in Wyoming as being in need of special management attention due to threats or declining populations.

A number of these species are unique, not only to Wyoming, but nationally unique; for example, the trumpeter swan, the common loon, wolverine, or river otter. These species occur in small populations, and due to the inherent dynamics of small population biology, they are very fragile, requiring rather intensive and expensive management. The fact that they are nationally unique would indicate that Federal attention is warranted.

Wyoming also has other species like the ferruginous hawk whose populations are healthy and stable in Wyoming but declining at significant rates throughout the species' nesting range. This species has been recommended by other States for listing as threatened and endangered, and the situation would indicate Federal attention from at least a funding standpoint to ensure that this species does not continue to decline in other States.

Perhaps the highest priority task that the department faces in nongame is simply maintaining an inventory data base, and this has been mentioned before. But, this is exactly the task that is needed to prevent population declines, and it is one of the more important tasks. But this is also the task where when we are faced with limited funding we cut down because it does not show as readily, the results do not show as readily, at least for the time being.

Much of the department's expenditures on nongame, which is displayed in the written testimony, also goes to input for Federal land management systems, Federal management programs that are ongoing in the State.

The Federal funding through the Nongame Act or the Fish and Wildlife Conservation Act would improve both the quality and quantity that we could provide Federal agencies in fulfilling their obligations.

In my written testimony I summarized and presented the importance of nonconsumptive use to Wyoming, the importance of wildlife associated recreation in Wyoming. I would like to summarize this here by saying that our estimates indicate that nonconsumptive use is three times more important to the economy of Wyoming than the current hunting and fishing. We estimate that by 1991 over $1 billion will be pumped into our economy by the nonconsumptive user. This may not seem like much for some of the folks in this room, but to Wyoming that represents approximately 15 percent of their gross State product. It's an industry that is stable or increasing. Because of this, it's an extremely important industry

in Wyoming's situation of a boom and bust economy that is wreaking havoc with the State right now.

Let's take a look at perhaps how we have treated this industry that we have identified as important. In the way of development, funds for developing and enhancing this industry, there just simply hasn't been much. Eighty-one percent of the Wyoming Game and Fish Department's income comes directly from less than 15 percent of the species that we manage, otherwise the game and the fish that are harvested. Eighty-one percent of the department's income is obtained from less than 18 percent of the user demand that occurs in the State, user demand quantified in recreation bays. Eighty-one percent also comes from, is associated with less than 25 percent of the economic input into Wyoming's economy.

Now this income problem is aggravated by the fact that 90 percent of our nonconsumptive use comes from nonresidents, and over 50 percent of the species that we manage are migratory. Both the nature of the funding problem and the complexity would indicate a strong Federal leadership in solving.

To summarize, I would like to just say what Federal funding can do to facilitate nongame endeavors is basically reduce the emphasis on crisis management or at least slow the rising dollar trend that we have seen with endangered species management.

Federal funding could also direct priority towards national or regional objectives.

Senator MITCHELL. Would you sum up now, Mr. Oakleaf.

Mr. OAKLEAF. Okay. Federal funding could ensure that high quality input is provided by the States.

Finally, I think that all of the States are basically in the same boat. They have taken the fiscal problem or the fiscal bull by the horns and are waiting for assistance that is so obviously needed from the Federal Government.

Senator MITCHELL. Thank you very much

Mr. Doig.

STATEMENT OF HERBERT E. DOIG, PRESIDENT, INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES AND ASSISTANT COMMISSIONER FOR FISH, WILDLIFE, AND MARINE RESOURCES, NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Mr. DOIG. Thank you, Mr. Chairman. I appreciate the opportunity to express both the point of view of the State of New York as well as the International Association of Fish and Wildlife Agencies before you today.

The State agencies and the international association have a long history of support for all wildlife resources, nongame and game alike. In the late 1960's we expressed that the interest in nongame species, which was different from the traditional game resources, by establishing a Nongame Committee and encouraging States to participate in this kind of management activity.

By the early seventies, more than 20 States had established permanent positions that would focus on species that were not hunted and fished.

A model law was established by the international association in the early 1970's which has been used by many States as they forged ahead in their legislative authorization for management of these species.

In spite of this commitment, the need for funding has not been met. The funding base has essentially been the traditional sporting license revenue that has been dedicated, but this revenue has been used with the support of the license buying public. Resources to protect and manage more species has been inadequate. So there are many unmet needs.

Comprehensive management of all fish and wildlife resources is essential, and one important ingredient in that is a cooperative mechanism with the Federal and State Governments to assure that cooperative and comprehensive management occurs. A coordinating and integrating mechanism is also needed recognizing the different authorities of the Federal and State Governments.

The international association and the State of New York have worked toward passage, did work toward passage of the Fish and Wildlife Conservation Act when it was originally being conceived. We viewed it as a good mechanism to provide the coordination and integration that was necessary. It promised a funding alternative which was never realized, but we did feel that it was an important element in the total integration of fish and wildlife resource management.

States have looked for other funding sources. There have been creative initiatives such as the tax checkoff initiated in Colorado, followed by 33 other States using this mechanism; personalized license plates; general tax deduction, such as the one that was established by the State of Missouri. General tax appropriations and special stamps have also been implemented by various States to try to meet this overall fiscal need.

As a part of this whole process, many needs have been identified. The legislative mandates have added additional workloads on already overtaxed staff. Protection of wetlands, stream protection, water quality action, endangered species requirements have all added to the demand for fish and wildlife attention. These demands have been great, resources have been inadequate.

In New York specifically in 1983, we established a tax checkoff contribution program. It has contributed about $1.7 million annually to fund nongame programs. This has funded approximately 40 projects per year, but in some years we have identified as many as 144 projects that were appropriate for funding.

Such programs as colonial water birds, marine mammals, stranding network, endangered species projects, contaminants identification, and the work on Diazinon that was done by New York, and many other States contributed to the outlawing of the use of that particular pesticide on sod farms and golf courses, poster programs to meet education needs, fisheries pathology and similar projects have all been ongoing since the establishment of the contribution program.

There are many unmet needs, however. There are hundreds of chemicals entering our environment, killing wildlife, contaminating food supplies, and we know little about them. There are resources needed to identify the impacts and determine what we can

do about them. Numerous species we know very little about. Many of the species that are now entering the endangered species list are a result of gradual increase in knowledge about species that may have been endangered 20 or 30 years ago, but we just didn't know about them.

Education is an important component of any fish and wildlife program. There is a need for integrating in the philosophies of people, of our citizenry, the message of stewardship and the conservation message that is necessary to advance fish and wildlife programs into the future.

Habitat enhancement and protection is also an important need that is identified. Especially in States with urbanizing areas, open space is a major emphasis. This open space can be translated into good fish and wildlife habitat so that the quality of life in these environments can be improved.

Wetlands and waterways are key types of habitat that need protection and enhancement if we are going to provide these resources for future generations to enjoy.

Traditional funds have been used, but new funds are needed.

There is a need for a resource management partnership. It was recognized in such programs as Dingell-Johnson, Pittman-Robertson, and Wallop-Breaux, the Endangered Species Act. It is now time to close that circle of funding bases to include all wildlife species. We believe very strongly that the Fish and Wildlife Conservation Act can do that.

We do not believe as an association or as individual States that there is a need for a change in the fiber of the law. We oppose changes in administration and management of the Fish and Wildlife Management Act. We feel that the State responsibility, maintenance of State responsibility is essential.

We support increased funding authorization, however, and creative funding bases that provide for a totally cooperative program.

Options we have looked at in support are small motor fuel tax, transfer from the Highway Trust Fund, a general tax appropriation from the Federal Government, new sources of revenue from exploitation on fish and wildlife lands if that becomes necessary and is deemed appropriate, and other excise tax bases. All offer options for funding these kinds of programs.

The needs are immediate, and we feel that there is an immediate option available to us in the fuel tax option.

In summary then, the needs are great, the demands are overwhelming, the time is right to support a comprehensive resource management program with reauthorization of the act and development of new and creative funding bases.

Thank you.

Senator MITCHELL. Mr. Doig, how many States have comprehensive conservation plans which are called for by the act of 1980 and that have been approved by the U.S. Fish and Wildlife Service and are now in effect?

Mr. DOIG. I believe there are about 20 States that have those kinds of authorized plans. That isn't to say, however, that many, many other States have planning processes that provide for comprehensive fish and wildlife management. In New York, for example, we have put our emphasis on evaluation and program develop-

ment rather than the development of a paper plan. We have management programs that are evaluated each year and the program plans developed each year. This provides for the comprehensive management we need.

Other States are working towards the development of comprehensive plans, however, and New York ultimately will have one.

Senator MITCHELL. We heard diametrically opposing statements on the extent of the effort being conducted. In his statement Mr. Lambertson said, and I quote:

> Forty-nine States have some sort of nongame conservation program in effect, 23 have developed or are developing conservation plans with Federal guidance or assistance. We believe that several of the other 27 States either have or are developing their own plans tailored to their own needs without any Federal involvement. In this sense the act has been and has continued to be implemented.

Dr. Manville was a little more pungent. He said the State effort has been a dismal failure. The clear implication of Mr. Lambertson's remarks is to the contrary. What is your view?

Mr. DOIG. My view is that we have to look at the context in which States are approaching this whole program. Some States view comprehensive fish and wildlife management as management of habitats where all species will benefit. Many States don't believe that you have a game and nongame program as such, but you have a comprehensive fish and wildlife program. Reporting on those kinds of programs would identify no nongame program, but if people looked at those programs in a comprehensive way, they would see that nongame species were benefitting along with game species as those programs were developed.

I do not believe that fish and wildlife programs of States to benefit nongame wildlife are dismal failures. I think a dismal failure is one where adequate resources are provided and a State has failed to be able to use those resources to good advantage. States have a will and a commitment and a desire to develop sound programs. If those programs are not funded, I don't believe that State programs can be viewed as dismal failures.

On the other hand, if we look at the needs and States' abilities to meet those needs, yes, they have been dismal failures because the resources have not been there to meet the needs.

Senator MITCHELL. Sometimes you get these tests where you get two statements and you have to select one of them even though you might not agree fully with either. Let me put it to you that way. Which of the two statements, Mr. Lambertson's or Dr. Manville's, more closely corresponds to your own view?

Mr. DOIG. The statement of Mr. Lambertson much more closely correspond to our view.

Senator MITCHELL. How about you, Mr. Oakleaf?

Mr. OAKLEAF. I am a little unclear as to whether your question was in relationship to nongame programs or the planning that is referenced in the Fish and Wildlife Conservation Act.

Senator MITCHELL. Perhaps that is a distinction that Dr. Manville made that I didn't catch. Generally what is the level of effort—Mr. Lambertson's statement clearly said, look, this is being done, the States are doing it, it's their responsibility. The only Federal role is to reimburse the States, and we are not going to do that because we don't have the money. But he indicated in his state-

ment the act is being implemented. The only sense he said it is not being implemented is Federal reimbursement.

The question is, to you gentlemen, is the act being implemented? Is the purpose of the act being met? Are the States doing what has to be done and should we not worry about it?

Mr. OAKLEAF. My answer would be no.

Senator MITCHELL. No, it is not being done and, yes, we should worry about it?

Mr. OAKLEAF. Yes, correct. Thank you.

Senator MITCHELL. Dr. Egbert?

Mr. EGBERT. First of all, I find myself at a disadvantage in speaking to the 50 States and the territories. I can't tell you that I know what they are doing. I can tell you that in Florida we undertook a comprehensive fish and wildlife planning effort. We did not do so at the behest or the direction of the Fish and Wildlife Service. We did it basically because it is the best way to do business in our opinion.

In terms of our activities with nongame wildlife, dismal failure they may be, but I disagree with that totally. We've done a great deal.

The point is, there is so much to be done. There is so much to be done. We have barely scratched the surface. If the truth be known, I suspect that all of the 50 States, regardless of the focus and the emphasis, are woefully underfunded, woefully understaffed, and frankly need a lot more support.

Senator MITCHELL. I am going to give Dr. Manville a chance to come back up here because I am not certain that I characterized—I know he used the words "dismal failure", but I want to make certain that I didn't mischaracterize his views.

Let me ask you one concluding question briefly, each of the three of you. You heard Mr. Lambertson's statements as to the Administration's interpretation of this act which I have just restated briefly and my statement, at least my understanding of it as this being a cooperative effort with joint responsibility. Which interpretation do you hold?

Mr. Doig?

Mr. DOIG. We strongly disagree with the characterization of the program as done by the Administration. We concur with yours.

Senator MITCHELL. Mr. Oakleaf?

Mr. OAKLEAF. We concur with yours. The Fish and Wildlife Service, cooperation with them and funding is needed.

Senator MITCHELL. Dr. Egbert?

Mr. EGBERT. We think it should be cooperative, but we are always concerned that it be truly cooperative and truly a partnership.

Senator MITCHELL. We are pleased to be joined here by two other distinguished members of the subcommittee. Senator Graham is the former Governor of Florida and I know has taken a very active interest in this area, both as Governor and now as Senator.

Welcome, Senator.

Senator GRAHAM. Thank you very much, Mr. Chairman.

I would like to start by saying a few words about one of our panelists, Mr. Allan Egbert, who is the Assistant Executive Director of the Florida Fish and Game Commission. That has been a very

active agency in the protection of wildlife in our State and has, as Allan has indicated, taken a special interest in nongame species in recent years, and I believe is now protecting some 1,200 of those species.

I would like to ask, first to Mr. Egbert, and then to the other panelists, if in 1980 when this act was passed you had been asked to establish a performance criteria, a criteria that to the extent possible was a measurable one in terms of the health of nongame species within your States, what would those performance criteria have been, and now, 8 years later, what report card grade would you give against those performance criteria in terms of what has happened?

Mr. EGBERT. Senator, thank you. The performance criteria we've got to choose I think is status. What is happening? Are they going up, are they going down, are they staying the same?

Senator GRAHAM. Is that in terms of the number of individuals within the identified species?

Mr. EGBERT. More likely an indirect indication of numbers. We can't count total numbers except for some exceptions. That would be the first step. On average, it's gone down. It has declined. We have had some successes, not necessarily some successes, some increases. But the declines outnumber the increases. Our wading birds continue to struggle. Some of the cavity nesting birds in particular continue to go downhill. Unfortunately for the small, nondescript organisms, we in most cases just don't know. We had no barometer in 1980. We are only just now working on some barometers as we speak.

Senator GRAHAM. Mr. Oakleaf, as I interpret Mr. Egbert's answer, it would be that the performance standard would be the number of individuals within the species to be protected using what proxies or other evidence is available to arrive at those numbers, that that should be a key or the key measurement of success or failure.

Applying that, (a) do you agree with that standard, and (b) applying that standard, what would be the result in your State over the 8 years that this act has been in effect?

Mr. OAKLEAF. I agree with that standard. A criteria, as far as implementing the act, for me anyway, would be, number one, how many species do you have adequate data to make the next step the criteria. In Wyoming the number of species for which we have adequate data is very limited, a very small portion.

The actual declines that are occurring in our State are very subtle right now, and we have made an attempt to aggressively address the ones that we are worried about. But what we are looking at is 20, 30 years down the road, the work that needs to be done now to prevent the criteria from deteriorating in 20 or 30 years.

Senator GRAHAM. So what you are saying is in the year 1980 you would have set a standard not for 1988 but for the year 2010 as to what you needed to accomplish. Eight years into that 30 year path, are you satisfied with where you are in terms of its likelihood of getting you to where you want to be in the year 2010?

Mr. OAKLEAF. No, I am not satisfied.

Senator GRAHAM. Mr. Doig?

Mr. DOIG. Thank you, Senator.

Senator GRAHAM. Same questions.

Mr. DOIG. My response is somewhat different. I, frankly, don't believe that we are at a state of knowledge where we can make those kinds of evaluations at the present time. Therefore, my standards would be basically in four categories.

First, is the state of knowledge of the species that we have to work with; second is the degree of authority to protect those species; third is the degree of public acceptance for protection of the species and management of them; and, fourth, the ability of agencies to respond for improvement of those species and protection of those species.

Looking at it in the context of a grading system, I would say our state of knowledge rates no higher than a "C". We've made some progress, but there is a long way to go.

The degree of authority, of protection I think has made better progress, and I would rate that a "B".

The degree of public acceptance is improving, and there is a strong movement of public support for nongame species management and protection. I would go for a "B+".

But our ability to respond has not been successful. I would rate that a "D" or a "U", probably a "U" because of the inadequacy of funding to be able to respond to these kinds of needs.

Senator GRAHAM. So you essentially are saying that we aren't at a point now that we can go beyond process standards of evaluation and go to a performance based standard?

Mr. DOIG. If we look at the resource as a whole, I do not believe we are at that point yet.

Senator GRAHAM. Thank you.

Senator MITCHELL. Thank you.

We are also pleased to have the distinguished former chairman of the subcommittee with us, who has been very active and a leader in this field for many years, Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

I would like to ask, if I might, a question of the group, and I apologize if this question has been previously asked. If we are vigorous in our efforts as regard game fish and birds, aren't we at the same time making massive efforts on behalf of nongame birds? In other words, as I see this thing, it gets down habitat, about 90 percent of it. If we are preserving wetlands, or if we have the Hawk Mountain Sanctuary Association or whatever it might be, a wildlife sanctuary, aren't we helping both game and nongame?

Mr. Oakleaf?

Mr. OAKLEAF. That's correct, we do help nongame when we help game. But the examples are numerous where there are individual species and habitat types that are not covered by the game habitat requirements.

Senator CHAFEE. If you are talking heron or hawks or whatever, you are talking ducks and the same type of habitat in most instances, aren't you? Let me put it another way, Mr. Doig. If you go out in behalf of—or let me ask, Mr. Egbert. In Florida, if you go out to preserve a wetland or an area where the former Governor has graciously provided you with an abundance of funds to do some purchasing, do you say, now look, this looks quite good for non-

game, but I'm not so sure it's good for game. So we won't buy that. What's your mental process?

Mr. EGBERT. Well, it doesn't—that really—you're right. You look at it from a wildlife perspective. You really don't think of it from a standpoint of is it good for game or is it good for nongame. And clearly, clearly, clearly there are situations and circumstances where wildlife management is in fact good game management and vice-versa.

Florida is blessed with a very successful land acquisition program. Those acquisitions are reviewed from the standpoint of a broad perspective of fish and wildlife, not whether it is good for deer, or whether it's good for ducks, but is it good for the wildlife that lives there.

So the answer to it is yes and no. There are clearly situations and circumstances where game management would preclude a nongame species thriving. Vice-versa is similarly true.

Senator CHAFEE. Well, could you give me an example of game management that would preclude the nongame thriving I think you said?

Mr. EGBERT. Yes. For example, in Florida, in northern Florida particularly, the timber industry is very active. It is a very large part of the local rural economy. The timber management practices are such that they go into an area, and they cut substantial acreage at any one given time. In a couple of years the regrowth stemming from that harvest operation is very conducive to white tailed deer. They thrive in that kind of a circumstance. Yet, one of our endangered species in Florida, also a federally listed species, the red cockheaded woodpecker, needs 60 to 100 year old pine trees for its cavities, and also for its feeding forays. It is noteworthy in Florida that the greatest bird declines we note are in those bird species that rely on old growth timber.

The trick is, for a wildlife manager and a wildlife biologist, is to find the mosaic that considers all—

Senator CHAFEE. But would you say to yourself, well, we recognize this, that the woodpecker needs these old pines, and therefore, I'm going to go out and buy some of those; or would the Federal funding or—well, let's just address the Federal funding. Would the Federal funding and the powers that be in the Federal Government say, oh, no, no, no, that's an old pine stand that does no good to game animals or game birds, so no, you are not entitled to any funds to buy that. Does that arise?

Mr. EGBERT. Not in my experience it hasn't arisen.

Senator CHAFEE. How about the others? Mr. Oakleaf?

Mr. OAKLEAF. No, I have not been faced with that.

Senator CHAFEE. But maybe you wouldn't make the choice. Maybe you would say to yourself if it's old pine that has nothing to do with game animals or game birds, which are primarily ducks, I suppose you would say to yourself, well, I won't buy it. Would that be true?

Mr. EGBERT. Senator, could you restate your question? I'm not sure I am following you.

Senator CHAFEE. Well, if you see a piece of land that is conducive to the retention and thriving of a nongame species, would you say to yourself, this doesn't present any opportunities for game animals

or game birds, but it does for nongame, but my business is to protect game, so I am not going to buy that. Does that go through your mind?

Mr. EGBERT. No. No, sir.

Senator CHAFEE. How about you, Mr. Oakleaf?

Mr. OAKLEAF. No. All of our habitat purchase and protection is done on an economic cost/benefit evaluation.

Senator CHAFEE. But if your cost/benefit factor, if your benefit factor is game, then you might say there is no benefit factor because this is a stand of trees, an area that is going to——

Mr. OAKLEAF. Correct.

Senator CHAFEE. So would that particular area get low marks?

Mr. OAKLEAF. It could. What you would have to do is to try and obtain a different way of purchasing that land, other than through our department or through other funding.

Senator CHAFEE. My time is up, Mr. Chairman.

Senator MITCHELL. Thank you, Senator Chafee.

We are pleased to also have Senator Durenberger with us this morning. Senator Durenberger?

Senator DURENBERGER. Mr. Chairman, thank you for the opportunity to be here. I don't have any questions.

Senator MITCHELL. Thank you.

Dr. Manville, I'll ask you to pull your chair up to the table and restate your comments when you used the words "dismal failure" just to make certain that I did not misunderstand or misrepresent what it was you said.

Mr. MANVILLE. Perhaps I should recharacterize that. Mr. Doig, you might want to read a copy of my testimony.

For starters, I think the states have done a marvelous job in a lot of areas. There is no question about that. But the reason I made the statement "dismal failure" is, if we look at the big picture—if we look at ecosystem management, maintenance of biodiversity on a state, national, North American, and continental basis—it is just not happening. From that standpoint, I would say that the state programs are indeed a dismal failure. No offense to what is ongoing. I think the limitation is funding.

You guys are doing a marvelous job with the money you have, but as I stated earlier in comments, much of your efforts are based at trying to get recovery activities accomplished for threatened and endangered species. You don't have the money for habitat acquisition. We can't even determine the status, let along the habitat needs, for the vast majority of species that aren't being looked at. It is no fault of your own. It is simply because you don't have the money to do it.

So from that standpoint, my assessment would be, yes, the programs are a dismal failure. Not to say that what has been done is not important because from a public standpoint the fact is that we have so many people interested—we have a vast majority of the American public interested in nonconsumptive use, bird watching, photographing, watching, wildlife feeding, etc. That says it right there, but the problem being of course that overall with all our species—mammals, birds, amphibians, reptiles, and some invertebrates—they are not getting much if or any attention. That's the

bottom line, what I think was the gist of my "dismal failure" comment.

Senator MITCHELL. Thank you very much for the explanation.

If there are no further questions——

Senator CHAFEE. Could I ask a question? What is your time limit, Mr. Chairman? Do you need to leave by a certain time?

Senator MITCHELL. I have to leave in a few minutes, but go ahead, sir.

Senator CHAFEE. Thank you.

Do you gentlemen have any idea of what we should be talking about for money on the Federal level? I know this is difficult, but I mean, are we talking $50 million or are we talking $10 million? I suppose you are like the generals in the war, you never get enough ammunition. So whatever it is, you would like to double it. But does anybody have an idea?

Mr. DOIG. Senator, in New York we are going through an assessment of what our total resource needs are. Most of our resource needs that are unmet are in the nongame area, the programs that benefit species that are not hunted and fished.

We have identified over $20 million of need immediately in that area that would be continuing on an annual basis. You certainly can't project that on the basis of 50 States, but the States have recognized the need of well over $100 million if we are going to do an adequate job in total comprehensive fish and wildlife management.

Senator CHAFEE. You used the words "States". In other words, the United States?

Mr. DOIG. Yes.

Senator CHAFEE. What are some of the specific needs? What would you use your money on in New York?

Mr. DOIG. The kinds of things we would use it on is status surveys, research on species that we know little or nothing about, try to determine which species are in abundance, which are in need of special attention, develop techniques for management of those species so that they would not become in jeopardy. We would focus on the needs for protection of specific habitats, and in New York our legislation that authorizes acquisition does limit our ability to make decisions on what species are benefited. Therefore, we would need justification for focusing on essential habitats for those species that needed special protection. We would focus on contaminants in our environment. There is inadequate money to identify what the impacts of the various chemicals that are going into our environment are doing to fish and wildlife species. We have identified many, but there are many more that go unidentified. These are the kinds of things that we would have very high on our priority list.

Senator CHAFEE. One other question. Are your agencies compartmentalized? In other words, do you have a game division, and a nongame division, an endangered species division, or do you just have in each of your States a wildlife division?

Mr. DOIG. The State of New York has a Fish and Wildlife Division. We do not make a discrimination between game and nongame. We view our program as a comprehensive program, and we manage all species based on habitat quality and potential.

Senator CHAFEE. Is that true of everybody?

Mr. OAKLEAF. Wyoming does have some individuals that are identified as nongame people, but their whole effort is to incorporate and improve the efforts of our other wildlife biologists in the field working with nongame.

Senator CHAFEE. I would just like to conclude with one statement if I might, Mr. Chairman. One is that the statistics that we see about—now I am talking game birds—the terrible decline we have seen over the past several years can be attributed, as I understand, to a drought they've had in Canada, but it's a downward trend. We may blip upward, but then it's a downward trend, and it's overall very, very discouraging. I think it gets back in so many instances to habitat, plus the chemicals that you mentioned.

But I would also like to bring a word of good cheer, Mr. Chairman, if I might. That is, you recall so well, and you helped establish a National Fish and Wildlife Foundation. I think you remember those hearings we had here. Well, I want to say that's off to a good start. They are doing some good work, and they are concentrating on habitat acquisitions. Oddly enough, one of their big fundraisers has been the sale of a stamp that isn't good in the U.S. mails, and isn't good for fishing and hunting. It's just a stamp that sells for $2.50 or something like that, that raises a ton of money. People will buy these stamps. I don't know what they do with them. They are very beautifully drawn of, in this instance, a wild duck. But it is a source of revenue raising that astonished me, the amount they raised.

Senator MITCHELL. You weren't here earlier, but several of the panelists suggested that we adopt a semi-postal stamp bearing your likeness as a way to raise money.

We aren't considering it.

Senator CHAFEE. I'm not sure what a semi-postal stamp meant. Could somebody explain that to me? What, do you get halfway there? Seriously, what is a semi-postal stamp?

Mr. DAVISON. Senator, it's a stamp that would, for instance, it would be a first-class stamp, a 25 cent stamp that would bear perhaps a 50 percent surcharge, a 10, 15 percent surcharge. So you would purchase a 35-cent stamp, and you would be able to use that in the mails for first-class mail, but the additional 10 or 15 cents would be used to put into a fund for nongame.

Senator CHAFEE. Has that ever been done?

Mr. DAVISON. Not in this country, but it has been done in about a dozen other countries.

Senator CHAFEE. Thank you.

Senator MITCHELL. Senator Graham has further questions, and he will complete the hearing. I have to go to another hearing. I thank you all very much for your testimony.

Senator Graham [presiding]. Thank you, Mr. Chairman. I would also like to make an observation that I believe it's true that as a general proposition that stamps are not used to depict people other than in a memorializing way. I'm certain the chairman was not suggesting that Senator Chafee was near that memorialization.

Senator DURENBERGER. Bob, would you yield for just one observation before the chairman leaves?

Senator GRAHAM. Yes.

Senator DURENBERGER. I don't intend to bring it up today, but all this discussion about investment leads me to remind both the chair and the ranking member of the subcommittee that I am very anxious for us to take an hour sometime soon to talk about the way in which these investments are being abused by illegal hunting in various parts of this country. We all make strong commitments and private contributions and checkoffs, and then in direct appropriations, and to have a few selfish individuals abusing that certainly tests the strain here between whether this ought to be done nationally or be done at a State level. So I hope that the chair of this subcommittee has at least one ear open to my plea that at some time in the next few weeks we can find some time to take on that side of the investment issue as well.

Thank you.

Senator GRAHAM. In listening particularly to Mr. Doig's statement of what he thinks the standards of success or failure should be with their heavy emphasis on scientific and process matters, I wonder if the mix of efforts as between decentralized focus on the development of State plans and centralized scientific research and raising the level of our knowledge base which could then be shared among all the States is a proper one. Do you believe that there is an enhanced role for the Federal agencies in terms of research and information gathering and dissemination that would be an enhanced contribution to their partnership?

Mr. DOIG. Yes, Senator, I do. That can be done through a number of mechanisms, including the Fish and Wildlife cooperative units. I feel that the Federal Government has a very important responsibility in providing information that is necessary to manage species because the Federal Government has a perspective that is broader than the individual States' mandates. So much of this research can be done by the Federal Government.

But each State has to shoulder its own responsibility, has to motivate and energize the local colleges and universities to focus on the needs as well. So I think there is a need for comprehensive research, but the Federal Government plays a very important role in that.

Senator GRAHAM. What would be your assessment of the current level of Federal research that is of assistance to the States in achieving the four objectives that you outlined as being the standards by which our nongame management program should be evaluated?

Mr. DOIG. In the nongame area, exclusive of endangered species, I would rate that as a "U".

Senator GRAHAM. As a "U"?

Mr. DOIG. Yes. They haven't done much work there at all. They haven't had the resources to do that.

Senator GRAHAM. Do you believe that this legislation that is before us now for reauthorization should be amended in order to give a greater emphasis to that Federal role?

Mr. DOIG. I don't believe that that's necessary. I think that the mechanisms are there now to make that possible. I think though that the act needs to be energized with resources so that people look at it as a viable option for active management of fish and

wildlife resources. I think that the mechanisms are already in place to make that happen if the resources are there.

Senator GRAHAM. Mr. Oakleaf, Mr. Egbert, do you have any comments on the Federal role?

Mr. OAKLEAF. I don't believe I have anything that I'd add. I think he summarized it pretty well.

Mr. EGBERT. Given the time situation, Senator, I agree completely. The cooperative units, the Fish and Wildlife research units in the various States could serve this role very adequately and more effectively if they had the resources.

Senator GRAHAM. Are there any other questions?

[No response.]

Senator GRAHAM. If not, Chairman Mitchell asked me to announce that Mr. William J. Vail, the Commissioner of the Maine Department of Inland Fisheries and Wildlife was unable to be with us today and extends his regrets. His statement will be part of the record.

Senator CHAFEE. Mr. Chairman, I would just like to commend all our witnesses. They are doing work that I deeply believe in, as I know you do. We urge you on. Each of our States is so dependent upon your efforts, and I think every bit of ingenuity you can use to deal with the problems you face—I don't know how many of you are involved in land acquisitions—well, you all are, I suppose, other than through the—maybe you have State bond issues. But I have been very impressed by what has taken place in lots of the States where they have worked so hard to get easements from private people, or their ingenious ways of protecting land. I would urge you, as I suspect you already are, to go after those in every respect.

I just received notice from the Governor of Maine that they acquired a very, very substantial section of an area that I am familiar with, partly through State purchase, partly through private donations, partly through donations of easements, partly through purchase of easements. As a result, the protection is there. I just want to tip my hat to all of you for what you are doing. In my reincarnation, which I hope won't be too soon, I'd like to be a fish and wildlife manager, but not too soon.

Senator GRAHAM. You will be able to put those stamps on the letters.

Thank you very much.

The hearing is closed.

[Whereupon, at 10:42 a.m., the subcommittee was adjourned.]

[Statements submitted for the record and the bill S. 2272 follow:]

85-995 88 - 2

STATEMENT OF RONALD E. LAMBERTSON, ASSISTANT DIRECTOR FOR FISH AND WILDLIFE ENHANCEMENT, U.S. FISH & WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION, ON S. 2272, TO REAUTHORIZE APPROPRIATIONS FOR THE FISH AND WILDLIFE CONSERVATION ACT OF 1980

APRIL 27, 1988

Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to discuss reauthorization of the Fish and Wildlife Conservation Act of 1980. The bill before you, S. 2272, would reauthorize appropriations through fiscal year 1990. In addition, you asked that we address some specific issues related to our efforts in this regard.

We cannot support enactment of this bill due to budgetary constraints and initiatives both at the State level and within the Service.

We are fully cognizant of the need to give management attention to the nongame resource. In 1980, for example, nongame species were the object of specific recreational pursuits by approximately 83 million Americans 16 years of age and older. By 1985, the number stood at more than 109 million and it continues to grow.

Currently, Federal grants are being made available to the States through the Federal Aid in Wildlife Restoration and the Federal Aid in Sport Fish Restoration activities to address the needs of game birds and mammals and sport fish. Nongame species do benefit from these activities. Additionally, the States have moved to generate non-Federal funds sufficient to begin this important undertaking. Our most recent information indicates that 49 of the 50 States now direct portions of their budgets to nongame. Their actions have been consistent with the Service's recommendations to this Committee in February, 1985, that called for the expansion of State conservation efforts using State-generated revenues. The States should be commended for their responsiveness to this need.

In 1987, State expenditures on nongame averaged about eight percent of the amount spent on game species. The funds used for nongame came from many sources, the most common being the State income tax check-off used by 33 States. Declining revenues from this source have prompted many States to seek still other creative approaches to generate the needed funds. Nevertheless, there continues to be significant support at the State level.

Following this Act's passage in 1980, certain of its provisions were incorporated into the operating procedures for the Sport Fish Restoration and Wildlife Restoration programs. Thus, the planning standards set forth in this Act have become the standards for the

23 States that are conducting fish and wildlife planning under these programs. A number of additional States are engaged in planning nongame conservation activities designed to meet their own needs and conditions without any Federal involvement. While our knowledge of this latter group is incomplete, we are aware that 49 States presently fund some type of program for management of nongame. This level of activity by the States once again attests to their alertness in dealing with this management need.

Let me turn now to the questions related to the Act that you presented in your letter of invitation.

As a prologue, it is important to note that the questions contained in your letter indicate that the Act has not been implemented. True, no Federal appropriations have been made under the Act to reimburse States for development or implementation of conservation plans for nongame species. Yet, a goal of the Act is that: "Each State should be encouraged to develop, revise, and implement, in consultation with appropriate Federal, State, and local and regional agencies, a plan for the conservation of fish and wildlife, particularly those species which are indigenous to the State."

As stated above, 49 States have some sort of nongame conservation program in effect. Twenty-three of these States have developed or are developing conservation plans with Federal guidance or assistance. We believe that several of the other 27 States either have or are developing their own plans tailored to their own needs without any Federal involvement. In this sense, the Act has been and is continuing to be implemented.

In summary, the Act clearly recognized that the development and implementation of nongame conservation plans is primarily a State responsibility and envisioned Federal reimbursement to the States for their expenses in this area. We fully concur in the assignment of responsibility to the States under the Act, and the facts demonstrate that the States have proceeded to initiate steps to carry out that responsibility. Given the fiscal condition of the Federal government, however, especially when compared to the fiscal status of the States, we cannot for the foreseeable future endorse Federal reimbursement to the States for fulfilling their responsibilities in conserving nongame species. Only in this sense has the Act not been implemented, and we support this outcome.

Now, let me turn to your specific questions.

First, even with the advantage of hindsight, it would be very difficult to categorically state that implementation of the Act would have prevented the decline of any particular species. However, on the presumption that significant Federal resources had been made available to the States, it could have provided control devices for manipulating water levels to benefit marsh nesting birds, ways to secure habitat for herons and other colonial nesting birds, and nesting structures for habitat-limited species, such as barn owls.

Secondly, the primary benefit to be gained from Federal reimbursement for State nongame conservation programs is that we would expect species to be removed from the list of those that are declining. This, we believe, could, in the long run, offset to some degree Federal and State costs for protection and restoration of those species listed under the Endangered Species Act. It is impossible to judge, however, whether the potential future cost reductions would totally offset the Federal costs of fully funding the Act.

Thirdly, as far as helping to develop and maintain stable and effective Federal/State cooperative programs is concerned, such coordination has already been established under the Sport Fish and Wildlife Restoration programs. Although nongame coordination is not totally complete, good cooperation exists under existing programs. In a world without budget constraints, Federal funds could be spent for integrated management of game and nongame species under a single plan. We do not view this as a high priority.

Finally, we do not have any suggestions for a funding mechanism at this time. As we stated in our February 8, 1985, letter to the Committee transmitting the study required by the Act, given the present fiscal situation, we cannot recommend either new taxes or appropriations from the General Fund of the Treasury. We can only add that no State is operating at as large a deficit as the Federal Government in terms of percentage of revenues, outlays, or economic activity. Therefore it is very difficult to justify asking the Federal Government to assume the additional responsibility of funding State nongame conservation programs.

Related to, but not directly a part of reauthorizing the Act are the U. S. Fish and Wildlife Service's activities that benefit species for which the Federal government has management responsibility -- primarily migratory birds. In Fiscal Year 1988, we will expend about $2.5 million for nongame research and another approximately $1 million in coordination with States and private organizations in conducting surveys monitoring nongame populations. Although difficult to assess monetarily, many of the Service's field activities benefit nongame species, ranging from management of the National Wildlife Refuge System to Service habitat evaluations related to Corps of Engineers issued 404 permits as well as for all federal projects.

In your letter, Mr. Chairman, you asked about the status of efforts to implement a program to identify unstable or declining species of migratory birds.

In August of 1987, the Service published a document entitled "Migratory Nongame Birds of Management Concern in the United States: the 1987 List". This publication revised and updated the list originally published in 1982. It identifies those species of nongame migratory birds that evidence documented or apparent population declines, have small or restricted populations, or depend on restricted or vulnerable habitat. The report is intended

to be used as an internal Service planning tool for focusing research and management activities over the next five years.

The philosophy behind this report is that "an ounce of prevention is worth a pound of cure." We believe that a well-designed program that addresses resource management issues at an early stage, thereby preventing species from declining to the Threatened or Endangered stage, may be more cost effective than the recovery effort required once a species is listed.

You also asked whether the Service has implemented a program to provide information that would enable Federal, State, and international entities to respond in a coordinated manner. Last year the Director asked the Service to review and update a previously prepared, but unimplemented, draft nongame management plan. I am pleased to report that effort is nearing completion and our "Nongame Bird Strategies" should be available for dissemination sometime this summer.

In conclusion, Mr. Chairman, we cannot support enactment of S. 2272 due to budgetary constraints and in light of the States' own successful initiatives.

I would be pleased to answer any questions you or other members of the Committee may have.

Hawk Mountain Sanctuary Association
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STATEMENT OF STANLEY E. SENNER, EXECUTIVE DIRECTOR
HAWK MOUNTAIN SANCTUARY ASSOCIATION,
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
27 APRIL 1988

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Mr. Chairman and Members of the Subcommittee, my name is Stanley E. Senner, and I am the Executive Director of the Hawk Mountain Sanctuary Association. Founded in 1934, Hawk Mountain is a private, member-supported nonprofit organization dedicated to the conservation of birds of prey and other wildlife. I also appear here as Chairman of the International Council for Bird Preservation--U.S. Section, Inc., of which Hawk Mountain is one of 27 member organizations.

We commend the Subcommittee for reviewing federal and state efforts to conserve species of fish and wildlife that are not taken for sport, fur or food, and that are not protected under the Endangered Species Act. Although the major purpose of the Fish and Wildlife Conservation Act is to provide financial and technical assistance to state "nongame" fish and wildlife programs, it also encourages the federal government "to the maximum extent practicable" to use its authorities to conserve nongame species.

Hawk Mountain Sanctuary Association

I was invited to this hearing specifically to address the adequacy of federal efforts (1) to identify declining populations of migratory bird species before they become threatened or endangered and (2) to respond in a coordinated way to meet the needs of those species.

Common Birds

Since passage of the Migratory Bird Treaty Act (MBTA) in 1918, the conservation of migratory birds has been primarily a federal responsibility, which has been delegated to the Fish and Wildlife Service (the Service) within the Department of the Interior. More than 90 per cent of the 832 species of North American birds covered by the MBTA are not ordinarily hunted, nor are they listed under the federal Endangered Species Act. Among these species are many familiar song birds from fields and forests, as well as birds of prey, shore and sea birds, and marsh and wading birds. Populations for most of these species are still rather common, and in some cases they number in the many millions.

Abundance, however, is no guarantee against extinction. We need look no further than the passenger pigeon and the Carolina parakeet to find examples of North American birds that were once tremendously abundant and are now extinct. The motto of Mrs. Rosalie Edge, the woman who founded Hawk Mountain Sanctuary in 1934, was: "The time to save a species is while it is still common."

Protecting birds (or any other wildlife) while they are still common makes a great deal of sense. As a conservation strategy, prevention is far more effective and less costly to government and industry than is the saving of species already on the brink of extinction. It is not practical to mount last minute rescue attempts for very many endangered species, and, sadly, in many cases our best efforts may not be enough. It was less than a year ago that the dusky seaside sparrow in Florida became the first bird to become extinct after it was formally listed as endangered.

The Passive Approach to Conservation

Unfortunately--due to a combination of tradition, orientation, and budgetary limitations--present federal efforts directed toward common migratory birds are such that if a species is not hunted it receives little or no attention until it is in deep trouble. The MBTA was passed at a time when unregulated "taking" (e.g., market and sport hunting, egg-collecting, millinery trade) was the greatest threat to migratory birds, both game and nongame species. Since then, the prevailing federal philosophy toward migratory nongame birds has been that they will prosper if they are protected from harvesting. Although federal programs have expanded to more broadly address threats to wildlife and their habitats, most of the attention has gone and is going to hunted and endangered species. In fact, the proportion of resources

allocated to nongame projects has declined significantly over the last decade.

To be sure, migratory nongame birds benefit greatly from many programs designed to conserve hunted or endangered species (e.g., wetland acquisition, bird banding). But declines in populations of many familiar species suggest that the passive approach to conservation is not enough. Such environmental problems as deforestation and forest fragmentation throughout the Americas, conversion of wetlands, modern agricultural practices and chemicals, and the depletion and pollution of surface and ground water supplies dramatically influence the distribution and abundance of migratory birds.

In 1987 the Service identified 30 bird species that showed evidence of declines and warranted "management concern" at a national level, but a staggering total of 407 species was considered for inclusion on the list. While we commend the Service for undertaking this review, a careful reading of the document reveals the limitations of our national data base.

Monitoring Populations

Since 1965 the primary federal program to monitor nongame birds has been the North American Breeding Bird Survey (BBS). The BBS relies on the help of hundreds of volunteers in the United States and Canada and is, in many respects, a model of cooperative data gathering. The BBS costs on the order of

$50,000 per year, and it effectively monitors about 250 species, mostly song birds. It does not adequately sample populations of many species (e.g., nocturnal and marsh birds), however, and the Service has yet to fully exploit the data that are gathered. Occasionally the Service does allocate resources to projects that supplement the BBS, but these projects are typically run on an opportunistic basis (e.g., when extra funds are available) rather than as a series of inter-locking, long-term studies designed to fill gaps in BBS coverage.

On the face of it such projects as the BBS may sound like academic exercises of interest only to ornithologists. On the contrary, routine and comprehensive monitoring of all major groups of birds can provide an early warning, alerting us when a species is in trouble. (Two examples of trend data are attached: historical numbers of migrating [1] bald eagles, an endangered species, and [2] the red-shouldered hawk, a still-common species widely acknowledged to be in trouble.) Population monitoring must then be coupled with research that reveals habitat and life history requirements, identifies causes of declines and effects of broad-scale environmental changes, and suggests management actions.

Program Element and Costs

One might ask why the necessary monitoring and research projects cannot be carried out by state agencies, universities,

and private organizations like Hawk Mountain. In many cases the necessary projects can and are being conducted by these groups, and they are doing so on a biologically sound and cost effective basis. But because migratory birds cross many geopolitical boundaries in the course of their annual movements, an effective program requires attention and perspective at national and international levels. The present lack of national direction exacerbates potential problems: funds are not allocated according to priorities; projects are duplicative, use nonstandard techniques, or are sustained for insufficient duration; and data are poorly managed, difficult to retrieve, and not shared. (The proliferation of state-level breeding bird "atlas" projects is a case in point.) As a result, scarce resources are not always used wisely and the results may or may not provide the information really needed.

A comprehensive migratory bird program must not only detect declines and conduct research before a species has reached critically low levels, but there must also be a commitment and institutional structure that translates the results into coordinated policy and management actions here and abroad. By virtue of its statutory and administrative authorities, its treaty obligations, and its network of facilities, personnel, and refuges, the Service is uniquely positioned to define an agenda and lead a program for national and international bird conservation.

Through the North American Waterfowl Plan, Flyway Councils, regional Migratory Bird Coordinators and others, the Service--from the director down--provides national leadership and coordination for the conservation of hunted species. These efforts are dependent on the participation of state agencies, universities, and private organizations--but the need for a federal role is clear. The same is true for nongame species. Unfortunately, the federal program for nongame species has nothing remotely resembling the waterfowl program in terms of organization, scope, or commitment.

At the very least, a successful program should include the following elements:

- a higher profile and a greater commitment, within the agency and publicly;
- clearly defined objectives and a comprehensive plan for research, management, and conservation;
- field, museum, and statistical research on monitoring techniques, life history and habitat requirements, geographic distributions, the effects of environmental change, and declining populations;
- national assessments that synthesize information on species' status and population trends;
- coordination within the Service to eliminate duplication of effort and to ensure consistency in objectives;
- legislation to fully implement our migratory bird treaties

and to eliminate loopholes in coverage under the MBTA;

- liaison with cooperating agencies (international, state, and private) through placement of nongame coordinators in each Service region, supported in Washington by adequate staff to provide national and international leadership; and
- training, technical assistance, and research in sister nations in the Western Hemisphere.

Bits and pieces of these program elements are scattered throughout the Service today, but there are many serious gaps and weak areas. As I pointed out earlier, much of the specific work that needs to be done can be performed effectively and efficiently by nonfederal entities. Most of all, what is lacking at the federal level is leadership and a commitment to provide even minimal resources to ensure that the job is done in a comprehensive way. The price tag for doing so is surprisingly low--largely because so much of the work can be accomplished by capable volunteers, who are eager to do the necessary field work if they feel they are contributing to bird conservation.

I already mentioned that the BBS costs only about $50,000 annually. Another example is the International Shorebird Survey, organized and supported by the private Manomet Bird Observatory (Massachusetts) at an annual cost of less than $50,000. Using volunteers, Manomet surveys shore birds at 600 key migration stopover sites, including many national wildlife refuges, in the

eastern half of the continent. Expansion to cover the west and to get maximum management benefit from these data would require an additional $50,000 annually.

A final example is that the total annual cost of placing nongame coordinators in each of the Service's seven regions is about $500,000. The total price tag for putting together the entire program at a minimal--but probably sufficient--level is in the neighborhood of $4 million annually. Of that amount, I estimate that perhaps $2 million is already being spent in one form or another.

Future Directions

In appropriating funds for Fiscal Year 1988, Congress gave the conservation of migratory nongame birds a boost. An extra $1 million was added to the Service's budget for research and management activities, and the Service was directed to issue and implement a nongame bird management plan. Service personnel are now spending the additional funds, and we understand that a draft "Nongame Bird Strategies" is nearly ready for release to the public. Although we are encouraged by these efforts, we note that they would not have been initiated without the additional resources and specific guidance provided by Congress.

Since one of the purposes of the Fish and Wildlife Conservation Act is to encourage federal agencies to make maximum use of their authorities to conserve wildlife, we believe that reauthori-

zation of the Act gives Congress the opportunity to provide additional guidance that will truly begin a new chapter in bird conservation. There are several approaches, but one example is to use legislation to extend the Act as a vehicle to amend the Migratory Bird Conservation Act, directing the Service to work with state and private agencies, and their counterparts abroad, to periodically assess the status of migratory bird populations, to identify declining species and the causes of their declines, and to develop a program for responding in a coordinated way to those declines.

The ultimate goal is to conserve the diversity of wildlife that is our natural heritage. As we consider ways to do that, we do not seek to diminish the attention directed to species that are hunted or endangered. Believing that an ounce of prevention is worth a pound of cure, however, we must instead increase the attention directed to the species that are not hunted or endangered.

In the case of birds, we are poised to make major advances in our collective ability to monitor populations and address the needs of still-common species. To use our scarce resources wisely--and successfully--requires federal leadership and an active partnership with state and private agencies and our counterparts in other nations. Many organizations, including the two I represent, have dedicated a great deal of money, expertise, and volunteers to this task. We stand ready to do still more. We

invite the Members of this Subcommittee to advance the cause of bird conservation by strengthening the federal role and encouraging cooperative efforts throughout the Americas.

Thank you for the opportunity to present these remarks and for your willingness to consider the federal role in the conservation of common migratory birds.

Source:

Office of Migratory Bird Management. 1987. Migratory nongame birds of management concern in the United States: the 1987 list. U.S. Fish and Wildlife Service, Washington, DC.

TABLE 1. The 1987 National List of Species of Management Concern.

Species	FWS Regions Where Status is of Concern	Primary Reason(s) for Listing: Apparent Negative BBS trend	Population Decline	Small Population Size	Restricted/ Vulnerable Habitat
Common Loon	1 3 5				X
American Bittern	3 4 5 6			X	
Least Bittern	3 4 5 6			X	
Reddish Egret	2 4			X	X
White-faced Ibis	1 6				X
Trumpeter Swan	1 6			X	X
Northern Harrier	2 3 5 6				X
Harris' Hawk	2		X	X	X
Red-shouldered Hawk	3 5		X		X
Black Rail	1 2 3 4 6		X	X	X
Snowy Plover	1 2 4 6	X	X	X	
Bristle-thighed Curlew	7		X	X	X
Gull-billed Tern	4 5			X	X
Roseate Tern	4 5		X	X	X
Black Tern	1 3 5 6		X		
Common Barn-Owl	3 4 5			X	
Spotted Owl	1 2 6		X	X	X
Ladder-backed Woodpecker	2	X			
Olive-sided Flycatcher	1 5	X			
Vermilion Flycatcher	1 2	X			X
Loggerhead Shrike	1 2 3 4 5 6	X			
Bell's Vireo	1 6	X			
Black-capped Vireo	2		X		
Golden-winged Warbler	3 5	X			X
Golden-cheeked Warbler	2			X	X
Cerulean Warbler	3 4 5	X			X
Bachman's Sparrow	3 4		X	X	X
Baird's Sparrow	6	X			
Henslow's Sparrow	3 5		X		X
Seaside Sparrow	4				X

TESTIMONY OF

DEFENDERS OF WILDLIFE

THE SIERRA CLUB

AND

THE WILDLIFE CENTER OF VIRGINIA

BEFORE THE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

CONCERNING

S. 2272

AND

FUNDING AND IMPLEMENTATION OF

THE FISH AND WILDLIFE CONSERVATION ACT OF 1980

April 27, 1988

Presented by:

Albert M. Manville II, Ph.D.
Senior Staff Wildlife Biologist
DEFENDERS OF WILDLIFE

INTRODUCTION

Mr. Chairman, Members of the Subcommittee, thank you for the opportunity to testify here today. I am Dr. Albert Manville, Senior Staff Wildlife Biologist for Defenders of Wildlife. I also chair a consortium of conservation and wildlife organizations called the Nongame Coalition. The participants in addition to Defenders include the Hawk Mountain Sanctuary Association, the Humane Society of the U.S., the International Association of Fish and Wildlife Agencies, the National Audubon Society, the National Wildlife Federation, the Nature Conservancy, the Sierra Club, the Wilderness Society, the Wildlife Center of Virginia, the Wildlife Society, and the Wildlife Management Institute. Although the participating organizations differ in their views on some wildlife issues, we share a common goal: to obtain secure funding for nongame programs at the state and federal level.

This testimony is presented today on behalf of Defenders of Wildlife, the Sierra Club, and the Wildlife Center of Virginia.

The Fish and Wildlife Conservation Act (FWCA), approved by Congress in 1980, is an extremely important piece of legislation. Its intent is to offer incentives to state fish and wildlife agencies to develop and implement comprehensive wildlife plans so that the vast majority of species, those not included in consumptive use management schemes, will not be jeopardized and ultimately require listing as threatened or endangered.

Although the states have made efforts to establish nongame programs, they suffer from a variety of problems that ultimately relate to unstable and inadequate funding. While some states have been successful in obtaining support from a variety of novel and traditional sources, most still depend on income tax check-off donations, which are now declining in many states as a result of competing checkoffs. While it has been over a decade since early nongame programs were established, still, substantially less than 10 percent of the funding for wildlife programs is expended on 90 percent of the nation's wildlife.

Our statement today will describe the existing situation, recommend essential steps to be taken by the federal and state fish and wildlife agencies, and discuss some appropriate funding mechanisms.

DISCUSSION

Most state wildlife statutes address the need for state fish and game agencies to prevent the depletion of any native species. Historically, biologists have concentrated management efforts on those species hunted by sportsmen, assuming that the others would enjoy incidental benefits. However, we now know that direct taking is only one source of wildlife mortality. Toxic chemicals, pesticides, and contaminants; marine plastic entanglement; habitat destruction, degradation, and fragmentation; road building;

land development; and other human activities all contribute heavily to the demise of nongame birds, mammals, fish, insects, reptiles, amphibians, and other forms of wildlife.

Techniques appropriate to the management of a few selected game species are simply not adequate to protect the vast array of wildlife present in any state. Most nongame programs, which at the state level are generally combined with the endangered species programs, are struggling to bring the most seriously jeopardized animals back from the brink of extinction, and by necessity, neglect most of the others. It's a crisis management situation, compounded by the fact that nongame managers feel compelled to focus on "glamour species" to maintain public support for their programs. Meanwhile, species are slipping away, in many cases unnoticed.

Until these problems are addressed, many nongame fish and wildlife populations will continue to decline, resulting either in their ultimate listing as threatened or endangered species -- with the resultant expenditure of millions of dollars in attempts to recover them -- or even worse, extinction. Since the FWCA was passed in 1980, 89 vertebrate species have entered into endangered status. Had the Act been funded, this trend might have been reversed.

In 1982, for example, the Fish and Wildlife Service (FWS) listed 28 nongame migratory bird species whose populations were unstable or decreasing region- or nationwide. The Service, in 1987, updated that survey, retaining 22 of the 28 original species. Six were deleted from the list (3 because of endangered or threatened listing, and 3 because of evidence of increasing or stable populations) while 8 species were added to the list (including 2 proposed for endangered or threatened listing). The 1987 list, then, totals 30 species (FWS 1987). More detailed assessments both by states and the FWS will probably uncover other nongame bird species in trouble. Appended to this testimony is a list (Table 1) of migratory nongame birds in trouble in your individual states.

Wildlife includes far more than just migratory birds. In North America, more than 90 percent of the approximate 3,500 species are neither hunted, fished, or trapped. Although state fish and wildlife agencies are attempting to manage nongame wildlife, the myriad of species needing analysis, surveying, or censusing is mindboggling. States are unable to do it alone.

Statistics from the 1985 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Lipscomb 1987) indicate that the nongame constituency is rapidly increasing: 110 million Americans (over half of all adults) actively participated in 1985 in nonconsumptive wildlife-related activities -- feeding, photographing, or watching wildlife -- while some 74% of the American public was classified as "nonconsumptive participants." This is a substantial increase from 1980, when 83 million Americans were classified as "active nonconsumptive

users." Birdwatching, in fact, is currently ranked as one of this country's most popular outdoor recreational activities.

Although this constituency is not particularly vocal or well organized, it represents the vast majority of Americans who enjoy wildlife in a casual way, and who believe that it's the responsibility of the government to prevent species from being exterminated.

State Nongame Program Needs

1. Comprehensive Plan and Budget

Every state nongame program needs a comprehensive plan to prevent the depletion of indigenous wildlife. Although the federal Act requires such a plan, and would have provided funding for the states to prepare plans, the lack of funding has discouraged nongame staff from spending time preparing plans for which funding is not available. As of 1987, only 19 states have completed plans, and there is some uncertainty as to how many of the plans comply with the Act. Most lack either realistic budgets, are not integrated into the agency's budget process, or both. A plan is worthless without funds to implement it.

The essential components of each state plan are contained in the sections which follow. Our suggestions for specific amendments to accomplish these general goals will be provided in the near future.

2. Research and Monitoring

Most nongame programs are heavily research oriented, and have generated some worthwhile studies on specific species. Most of the research funding has been directed toward threatened and endangered species, especially bald eagles and peregrine falcons. More funding and direction from Congress would enable states to take a more comprehensive approach to research. Efforts essential to a comprehensive nongame wildlife program should include monitoring populations over time to identify downward trends, carefully designed studies to determine the most significant mortality factors affecting nongame wildlife, and habitat inventory to identify the most critical land for acquisition or protective designation.

Research priorities need to be fully integrated into the comprehensive plan and results carefully evaluated with respect to reversing the decline of wildlife populations. Plans should be revised periodically to incorporate research findings.

3. Habitat Protection

After critical habitats are identified, states can take the necessary steps to protect the areas. Acquisition, land use

planning, conservation easements, and other methods are available to protect habitat, once the essential habitats have been identified. States should be encouraged to integrate these findings with decisions concerning land use and other activities.

4. Nonconsumptive Wildlife Recreation

The significant and growing demand for nonconsumptive wildlife recreation opportunities like birdwatching and wildlife photography has been largely unmet by state and federal agencies, even though a majority of the population is involved. These activities generate at least $14 billion annually, including over $1 billion in bird seed sales alone. Although most of the species viewed by the public are nongame, wildlife agencies are still preoccupied with the management of hunting and fishing programs. Maintaining viable populations of all wildlife is important to ensure that future generations have the opportunity to observe and study wild animals in their natural habitats.

Only a handful of state wildlife agencies (Alaska, Wyoming, Oregon, Colorado) have given serious consideration to "watchable wildlife" programs, and none has established a recreation program with high quality facilities and interpretation for the public.

Federal funding would enable states to incorporate wildlife recreation into their nongame programs.

5. Public Relations

Nongame directors generally bear the impossible burden of promoting their programs to generate tax checkoff or other donations from the public without the tools necessary to accomplish the goal. Few nongame programs have staff trained in marketing or public relations, and fish and wildlife agency information and education departments offer support to nongame programs in varying degrees. The overall effect is low visibility for most nongame programs, which limits public support.

State agencies desperately need more funding to inform the public about wildlife ecology, and activities which destroy wildlife or habitat, as well as to facilitate the enjoyment of wildlife resources without causing adverse impacts.

Ultimately, wildlife conservationists must develop a new terminology to replace the word "nongame." If the goal is protecting biological diversity and preventing species extinction, then reference to the conservation of wildlife communities is more accurate and appropriate than the bureaucratic term "nongame."

6. Staff

Most nongame and endangered species programs are seriously understaffed. A common pattern is for one wildlife biologist,

often without administrative, budgeting, and political experience, to run the entire program. The person often has little access to decision makers in the agency, little administrative support, and inadequate access to the budget process.

The result is the "one-armed paper hanger syndrome," in which the one person is overwhelmed with phone calls and correspondence and has no time to develop and implement a comprehensive program. In some states, other responsibilities are combined to create an even greater burden. In Texas, for example, the director of the nongame and endangered species program also has the responsibility for furbearers and alligators. In Oregon, the nongame biologist issues falconry and rehabilitation permits and handles "opossum in the basement" calls from the public.

A minimum staffing arrangement, depending on the size of a state and extent of wildlife resources, is a program manager, program assistant, natural resource policy analyst, policy assistant, public information specialist, wildlife recreation specialist, urban wildlife biologist(s), and regional biologists.

Funding Needs for Nongame Programs

In order for each state to develop and implement comprehensive nongame fish and wildlife management plans as called for in the FWCA, federal funds are essential. Initially, the funds are necessary for planning. Ultimately, the availability of federal money will motivate the states to secure matching funds.

The majority of participants in the Nongame Coalition have requested $5 million in federal appropriations for FY88 and FY89 to begin funding the Act. We generally view this $5 million appropriation as a source of seed money to assist the states until a permanent, substantial, reliable, and equitable off-budget funding mechanism can be developed and implemented (see below).

In the March 1987 edition of Audubon Activist, Defenders (Vickerman 1987) provided a comparison of state nongame programs and budgets. The 1986 state nongame budgets spent on all programs and activities totalled about $35.5 million. A recent report by the National Wildlife Federation (Inkley et al. 1988) indicated that for nearly all states to adequately meet their nongame funding needs (not including habitat acquisition) would require at a minimum 100 - 300% more money than they now receive.

Defenders considers the NWF needs estimate to be low, since it is apparently based on the assumption of nongame biologists that the funds will be spent on additional projects which resemble the ones now underway. It also excludes habitat acquisition, an essential component of any nongame program. A more comprehensive approach such as the one described above

would be more costly. However, we recognize that planning must precede large-scale programmatic shifts and habitat acquisition efforts, and recommend that a funding mechanism be identified initially to produce at least $100 million annually.

The General Accounting Office (GAO) recently analyzed two potential funding mechanisms (Duffus et al. 1988a and 1988b). One in particular -- a redirected excise tax on fuels used in lawn and garden equipment -- appears to hold great promise. There is a logical relationship here between this excise tax and nongame fish and wildlife. The tax would be redirected from non highway-related use including lawn mowers, tillers, weed-eaters, garden tractors, leaf blowers, trimmers, chain saws, log splitters, shredders, and other equipment. This machinery can and does often negatively affect nongame species through habitat loss and/or degradation, as well as providing benefits to some urban wildlife species. A redirected fuel tax thus represents a logical mitigation fee for nongame.

Based on current estimates derived by the Outdoor Power Equipment Institite, revenues ranging from $21.3 to $48.3 million per year could be accrued. Such sums would represent less than 0.5% of the $8.98 billion in gasoline and gasohol taxes collected in 1986 for the Highway Trust Fund. These funds also are significant and stable, important requirements for a nongame funding mechanism. We strongly endorse the redirected fuel tax as a source of revenue for nongame efforts. We further recommend that Congress specify the dollar amount to be diverted from the Highway Trust Fund if a nongame trust fund is to be set up with fuel tax receipts.

We also suggest diverting those funds attributable to use of vehicles off our public roads. The same rationale as above applies here.

Several voluntary funding mechanisms have recently been discussed, but have not been given serious attention by most of the environmental community as sole-source funding options because of their voluntary nature. One such mechanism is the semipostal stamp. According to GAO estimates (Duffus et al. 1988b), a semipostal stamp would likely generate surcharge revenues of perhaps $12.1 million per year. Another voluntary mechanism is the sale of a nongame stamp, analogous to the federal waterfowl/duck stamp. No current estimates are available regarding revenues it might accrue. Although we do not object to voluntary funding sources which **supplement** permanent funding, we oppose any voluntary mechanism as a sole-source funding package since we feel it would prove unreliable and inadequate to the need.

There has also been some discussion about imposing "user fees" which enable the public participating in nonconsumptive wildlife recreation to help pay for wildlife conservation. These include access fees to certain refuges and other public lands, excise taxes on products and equipment used in viewing and

feeding wildlife, and related sources. In principle, we find user fees acceptable, and support the imposition of such fees as part of a package that includes general sources and mitigation funding.

Defenders of Wildlife conducts an annual survey of the nongame programs in the fifty states to compare the programs, organization, and funding. The 1987 data includes expenditures on the natural heritage programs, since there is a close relationship between the program goals, and in some cases natural heritage and nongame/endangered species programs are combined. These data are available to the Committee in draft form. A report will be prepared shortly.

SUMMARY

On behalf of Defenders of Wildlife, the Sierra Club, and the Wildlife Center of Virginia, I respectfully request your support for full implementation and funding of the FWCA. Since the Act was adopted in 1980, 89 vertebrate species have entered into endangered status, others await listing, and the status of most nongame wildlife is essentially uncertain. This dilemma is due in substantial part to lack of funding for the Act. Although we acknowledge the importance of protecting viable populations of game species and bringing a few endangered species back from the brink of extinction, these efforts do not constitute effective wildlife conservation. Your action, therefore, can make a difference in protecting our precious wildlife heritage. This concludes my testimony. Thank you, Mr. Chairman, and Members of the Subcommittee for providing us the opportunity to make our views known to you today.

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Table 1 (appended)

Table 1. Some examples of nongame migratory bird species of concern, showing significant population declines, and/or on state lists for endangered, threatened, or rare classification [Note: the list of these species is based on expert opinion. For many of these species, this is the only information available. Thus the further need for federal nongame assistance]

Source: U.S. Fish and Wildlife Service 1987 Migratory nongame birds of management concern in the United States: the 1987 list. Office Migratory Bird Management, USFWS, 27 pp., plus appendices.

ALABAMA

American Bittern
Wood Stork
Cerulean Warbler

ALASKA

Bristle-thighed Curlew

ARIZONA

Ferruginous Hawk
Black Rail
Spotted Owl

ARKANSAS

Least Tern

CALIFORNIA

Vermilion Flycatcher
Spotted Owl
Long-billed Curlew
Black Rail
Harris' Hawk
Northern Harrier
Least Bittern
Common Loon

COLORADO

Spotted Owl
Least Tern
Ferruginous Hawk
American Bittern
Vermilion Flycatcher

FLORIDA

Seaside Sparrow
Bachman's Sparrow
Wood Stork
Reddish Egret

GEORGIA

Bachman's Sparrow
Wood Stork

IDAHO

Common Loon
Trumpeter Swan
Long-billed Curlew

ILLINOIS

Black Rail
Piping Plover
Least Tern
Common Barn-Owl

INDIANA

Least Tern
Common Barn-Owl
Golden-winged Warbler

IOWA

Least Tern
Black Tern

KANSAS

Ferruginous Hawk
Least Tern

KENTUCKY

Least Tern

LOUISIANA

Reddish Egret
Bachman's Sparrow

MAINE

Black Tern

MASSACHUSETTS

Golden-winged Warbler

MICHIGAN

Piping Plover
Common Barn-Owl
Golden-winged Warbler

MINNESOTA

Piping Plover

MISSOURI

Black Rail
Least Tern
Common Barn-Owl

MONTANA

Trumpeter Swan
Least Tern

NEBRASKA

Least Tern

NEVADA

Ferruginous Hawk
Long-billed Curlew
Vermilion Flycatcher

NEW JERSEY

Golden-winged Warbler

NEW MEXICO

Least Tern
Spotted Owl
Vermilion Flycatcher

NEW YORK

Piping Plover
Black Tern

NORTH CAROLINA

American Bittern
Piping Plover
Gun-billed Tern

NORTH DAKOTA

American Bittern
Ferruginous Hawk
Long-billed Curlew
Least Tern
Baird's Sparrow

OHIO

Piping Plover
Common Barn-Owl

OKLAHOMA

Least Tern
Black-capped Veiro
Cerulean Warbler

OREGON

Common Loon
Ferruginous Hawk
Long-billed Curlew
Spotted Owl

PENNSYLVANIA

Piping Plover
Least Tern

SOUTH DAKOTA

Least Tern
Baird's Sparrow

TENNESSEE

American Bittern
Least Tern
Olive-sided Flycatcher

TEXAS

Reddish Egret
Harris' Hawk
Ferruginous Hawk
Gull-billed Tern
Least Tern
Black-capped Vireo

UTAH

Ferruginous Hawk

VERMONT

Black Tern
Cerulean Warbler

WASHINGTON

Common Loon
Ferruginous Hawk
Long-billed Curlew
Spotted Owl

WEST VIRGINIA

Olive-sided Flycatcher
Golden-winged Warbler

WISCONSIN

Common Loon
Common Barn-Owl

WYOMING

Trumpeter Swan
Ferruginous Hawk

Working for the Nature of Tomorrow

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Statement of

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Before the

Subcommittee on Environmental Protection
Committee on Environment and Public Works
United States Senate

on

S. 2272

A Bill to Reauthorize the
Fish and Wildlife Conservation Act

Washington, D.C.

April 27, 1988

Mr. Chairman and members of the Subcommittee, I appreciate this opportunity to testify before you today. My name is Douglas B. Inkley, and I am the Wildlife Resource Specialist in the Fisheries and Wildlife Division of the National Wildlife Federation (NWF). Our organization is the nation's largest conservation-education organization, with over 5 million members and supporters and 51 affiliated state and territorial organizations.

The NWF has had a longstanding interest in the Fish and Wildlife Conservation Act (Act) and we have supported its intent since it was first conceived in the mid-1970's. The passage of the Act in 1980 was a significant turning point for the fish and wildlife resources with which this nation is so richly endowed. For the first time, the need to conserve this nation's wildlife heritage, including **both** its game **and** "nongame" species, was recognized. This is because the Act provides for the development of comprehensive fish and wildlife management plans by the states to benefit all species of fish and wildlife.

Enactment of the Fish and Wildlife Conservation Act was only a start to broadening this nation's wildlife conservation

activities to include all species. Unfortunately, there has been a total absence of funding for the Act since its passage eight years ago, despite an annual authorization of $5 million. In the eight years that this important program has gone unfunded, however, the status of many species of this nation's fish and wildlife has deteriorated. My testimony today will focus on the compelling need to fund the Fish and Wildlife Conservation Act.

STATUS OF NONGAME FISH AND WILDLIFE

Determining the current status of fish and wildlife species which are not hunted and fished (nongame) is especially difficult because of the historic lack of management attention given to these species. There is a paucity of data on the distribution and abundance of nearly all these species. A high priority and important use of funds from the Fish and Wildlife Conservation Act is to establish procedures and methodologies to inventory and determine the status of nongame wildlife. The absence of funding for the Act since its passage in 1980 has severly restricted states from obtaining information adequate to formulate management priorities and strategies. Despite the short-comings of current inventory programs and lack of data with which to make status determinations, the limited information that is available demonstrates the need for an aggressive and well funded nongame program.

Endangered Species

The Endangered Species Act (ESA) is one of the most important pieces of wildlife legislation in the history of this nation. The plight of threatened and endangered species protected pursuant to the ESA is a barometer of the health of this nation's fish and wildlife resources. In the United States, over 250 fish and wildlife species are listed by the U.S. Fish and Wildlife Service (FWS) as threatened or endangered. This is only the tip of the iceberg, however. A backlog of over 3,000 "candidate species" (world-wide and including plants) remain for status evaluation. That the Fish and Wildlife Service listed in 1987 the second highest number of endangered and threatened species since 1979 is testament to the continued decline of many of this nation's fish and wildlife species.

Migratory Nongame Birds

Another reliable bellwether is the status of the nation's migratory birds. In an August, 1987 report prepared by the FWS, 30 migratory nongame birds of "management concern" were listed for the United States. As with endangered species, this statistic is only the tip of the iceberg. In identifying migratory nongame bird species of special concern, the Service received 407

nominations - 53% of the 774 species of nongame birds covered by the Migratory Bird Treaty Act. Thus, over half the nongame bird species in the U.S. were considered by authorities to be in sufficient decline to merit nomination for special management attention.

In identifying species of management concern, the Service also reported that about 45 of the more abundant species exhibited significant decline. Of these, 13 have been documented to be in widespread, systematic declines throughout their breeding ranges. Over a 20-year period the populations of these 13 species declined an average of 46.9 percent, or 2.7 percent annually.

An important source of information for determining the status of avian species is the Breeding Bird Survey (BBS), which is conducted annually by volunteers for the FWS. Data available from 1965 through 1985 reveal population trends for 211 nongame migratory birds not threatened or endangered and with statistically reliable data. Of these 211 species, 23 percent (48) had declined over the study period.

The status of the 563 migratory nongame bird species not evaluated in the BBS report is equally discouraging. For one, 67 of the species are already on the U.S. threatened and endangered species list. For another, trends for many of these 563 species

could not be evaluated because their populations levels were too low to permit statistically reliable analyses.

Other Nongame Fish and Wildlife Species

Compared to birds, little information is available on the status of other nongame species of wildlife. Again, the number of species listed under the ESA is indicative of the declining status of many nongame animals other than birds. Over 212 animal species other than birds have been classified as threatened or endangered in the United States (Table 1).

Most states have compiled lists of species which are in need of special management attention (Table 2). The conservation of these species, many of which are not yet federally listed as threatened or endangered, is needed to maintain these wildlife populations and prevent their further decline. As Table 2 reveals, in six states alone, an average of 98 species are in need of special management attention.

Summary

The absence of funding for the Fish and Wildlife Conservation Act has restricted the ability of states to assess the status of nongame wildlife species. Nonetheless, the limited data available

document that many nongame fish and wildlife populations in the United States are declining. In 1987 alone, 59 species were added to the threatened and endangered list. A report issued by the U.S. Fish and Wildlife Service listed 30 migratory nongame bird species of management concern because of declining populations. Other Service data identify 48 migratory nongame bird species exhibiting significant population declines from 1965 to 1985. Until increased funding for nongame wildlife management becomes available, there is no reason to believe these downward trends will be reversed.

CONSERVATION OF BIOLOGICAL DIVERSITY

Experience with the Endangered Species Act indicates that approaches other than fish and wildlife "crisis management" must be instituted if this nation's fish and wildlife heritage is to be conserved. Recovering species listed as endangered can be extremely difficult due to biological and political factors. It is well-established that at low population levels, inbreeding among members of a species reduces genetic diversity and viability in succeeding generations. It is also obvious that at low population levels species are jeopardized by a single catastrophic event which can destroy significant portions of the remaining population.

Few will dispute that recovering endangered species can be an extremely expensive undertaking. Funding for recovery programs through ESA's matching grants to states programs have been entirely inadequate. For example, while the President's FY 1989 budget recommended only $4.3 million for the program, California condor recovery efforts in 1988 alone cost approximately $1.5 million. While the NWF supports appropriations of funds for recovery efforts, economic and efficient management demand protecting wildlife species before their populations reach such low levels that they require state or federal protection and captive breeding programs.

The fact that recovery of endangered species is so difficult to accomplish demonstrates the need to also manage wildlife long before their populations become so low as to merit special protection afforded by the Endangered Species Act. Of more than 250 animals listed in the U.S., only seven have been delisted (Table 3). Five of these seven have been declared extinct. After re-examination of their status the other two were determined never to have been endangered and were declassified. The attempt to recover the dusky seaside sparrow failed when the last individual died in 1987. While individual populations of some endangered species have recovered, only one species (American alligator) has ever recovered sufficiently to merit complete delisting. The path

to recovery is a long, expensive, and inherently risky road. Recovery efforts for endangered species, while important, are examples of crisis management in the extreme. Typically, conservation efforts for these species are not initiated until populations are so depressed that genetic viablity is significantly reduced, wild populations are small and difficult to locate, and essential habitat has been destroyed. Clearly, conservation efforts are needed long before a species falls to such low levels that special protection afforded by the Endangered Species Act is required.

The solution to the crisis management posed by endangered species is conservation of biological diversity. Because the Act contains provisions for the development of comprehensive fish and wildlife management plans, conservation of biological diversity can be achieved through the Act. To begin to address this need, the NWF recommends the Committee give serious consideration to amending the Act to require the requisite management plans be developed for the much broader need to conserve biological diversity. It is time that this nation's wildlife management philosophy moves from that of "featured species" (e.g., threatened, endangered, nongame, indicator, game) management to the conservation of biological diversity. This Act provides the opportunity to set this philosophy into motion to the benefit of all species of wildlife.

PUBLIC SUPPORT FOR NONGAME WILDLIFE PROGRAMS

The American public has expressed strong interest in the conservation of nongame fish of wildlife. For example, a 1980 study supported by the U.S. Fish and Wildlife Service concluded:

> "...[T]he majority of Americans appeared to strongly value wildlife and have expressed willingness to make substantial social and economic sacrifices to protect this resources and associated habitat. Various findings consistently indicated wildlife was not just the concern of an esoteric and elitist minority, but instead, had broad appeal to many, if not most, Americans. The impression was that an abundant, diverse and healthy wildlife population contributes, in the minds of of many, to a high standard and quality of life."

The favorable attitude of Americans towards environmental protection and conservation of wildlife is reflected in their outdoor activities. The U.S. Fish and Wildlife Service reported that in 1980, 83 million Americans (47 percent of adults) participated in "nonconsumptive" wildlife-related activities. These nonconsumptive activities included feeding, photographing or watching wildlife. More importantly, these were primary activities -- activities in which the primary purpose was to enjoy wildlife. By 1985, primary nonconsumptive activities had increased to nearly 110 million Americans, or 61% of all adults. Even more Americans, approximately 74% of all adults, were

classified as "nonconsumptive participants," indicating they enjoyed wildlife either as a primary activity or secondarily while participating in other unrelated activities. In 1985, of the people involved in observing, photographing and feeding wildlife, each spent an average of 11.5 days a year and 3.4 hours per day in these activities. The potential economic and recreational benefits to the American public by improving the health of this nation's fish and wildlife species obviously is great.

Evidence available indicates that the American public is willing to pay for fish and wildlife conservation. According to the Service's 1980 report, the majority of Americans were willing to make economic sacrifices in order to protect the nation's fish and wildlife resources. For example, fully 89% of those surveyed were willing to incur a substanstial increase in cost for energy development projects in order to protect the bald eagle. The expenditures in 1985 by adult Americans for nonconsumptive wildlife-related recreation were estimated to be $14.3 billion. Americans also have supported special taxes on fishing and hunting equipment for 37 and 51 years, respectively, to pay for the conservation of sport fish and game wildlife species. These programs have yielded over $2 billion for fish and wildlife. Clearly, Americans have a strong interest in paying to conserve wildlife -- an interest which continues today.

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URBAN WILDLIFE PROGRAMS

An important area of nongame management that is lacking in size and number is urban wildlife programs. In 1980, over 75 percent of the U.S. population resided in urban areas and by the year 2000 this percentage is expected to increase to 80 percent. Despite this, a 1987 survey conducted by the Iowa and Wisconsin Departments of Natural Resources revealed that only 10 states currently have urban wildlife programs. Six of these programs had annual operating budgets of less than $50,000 dollars, two had budgets between $80,000 and $225,000, and two had budgets of $1 million. Importantly, 90 percent of the states reported to be operating at budget levels significantly below their needs.

There are a number of important objectives of urban wildlife programs (Tylka et al. 1987). These include (1) managing urban fish and wildife resources to maintain, enhance, or create habitats for populations of desirable species, (2) allowing for urban and suburban residents to enjoy the fish and wildlife resources of their community, (3) educating urban residents to better appreciate fish and wildlife resources and their ecological requirements and interrelationships, and (4) advocating sound, interegrated wildlife control programs, including habitat alteration and/or removal of offending animals, to minimize human-wildlife conflicts.

An expansion of these important programs will be necessary to sustain the health of wildlife populations which are continually being impacted by the expansion of urban areas. Furthermore, urban wildlife programs can provide important educational opportunities for young and old alike. For example, it is well documented that the childhood years are a critical time in human development that will affect an individual's knowledge, perceptions and attitudes to wildlife in later years. Expanded and well-funded urban wildlife programs could do much to foster an awareness and appreciation of wildlife and wildlife management in our nation's burgeoning population.

FUNDING NONGAME PROGRAMS

With passage of the Fish and Wildlife Conservation Act in 1980, Congress made clear that the conservation of all fish and wildlife species was a national priority. Although Congress has never appropriated funds for the Act, the Act has provided a much needed impetus for states to begin developing comprehensive wildlife management plans and to seek new sources of funding. However, the absence of any federal funding for the Act cannot be allowed to continue and is a situation that needs to be remedied as soon as possible.

Since passage of the Act, states have developed a variety of funding sources for conservation of nongame fish and wildlife. California and Washington raise revenues from sales of personalized license plates and Florida's nongame program is funded through a $4.00 automobile registration surtax for new residents of the state. Colorado initiated the first income tax check-off for a nongame program in 1977. Since then, the primary funding source for 34 state nongame programs has been the voluntary income tax check-off. These programs operate by presenting an opportunity for citizens to donate money as they complete their annual state income taxes. In FY 1985-1986, 32 states received $8.4 million from income tax check-offs.

Despite the large number of states which now have funding sources for their nongame programs, many funding initiatives have

failed. Thompson (1987) reported that 22 states had made unsuccessful attempts to secure nongame funding. Implementing tax check-off and trust fund programs and appropriating state general revenues all have failed because of inadequate legislative support and state funds. Furthermore, many states, such as New Hampshire, Wyoming and Alaska, do not have a state income tax and so cannot have check-off programs for generating funds.

Some state funding programs are now witnessing a decline in their nongame revenues. This, in part, is due to reliance on voluntary contributions. Experience shows that, over time, voluntary contributions decline. For example, Colorado received $741,000 from its check-off program in 1981, but experienced a decline to only $398,000 in 1985. The decline in revenues, coupled with inflation, have forced staffing cut-backs and reorganization of the state's nongame program. Importantly, all 34 of the state income tax check-off programs are entirely voluntary.

Another factor contributing to declining revenues has been enactment of competing check-offs to raise funds for other purposes. These include check-offs to generate money to prevent child abuse and fund the Olympics. Schaefer (1986) determined that, when competing check-offs were added to the tax forms in 1984, revenues declined by over 16 percent (Table 4). By comparison, revenues in states that were not implementing

competing check-offs that year increased by three percent.

A 1987 survey "Funding State Nongame Programs: How Much Is Enough?" (enclosed for the record) of all 50 state agencies by the NWF showed annual state expenditures for their nongame programs to be approximately $43 million dollars in FY 1987. Because many states combine their endangered species and nongame programs, this figure includes some expenditures for endangered species management. These results are consistent with other surveys. For example, Thompson (1987) reported that 45 of 48 states with nongame programs had a total annual budget of slightly more than $13.7 million in 1985. Two other estimates established annual state expenditures on nongame at $27 million for FY 1985 (Cerulean and Fosburgh 1986) and $35 million for FY 1986 (Defenders of Wildlife 1986).

The shortfalls for funding nongame wildlife conservation is dramatically illustrated by contrasting funding levels for game and nongame management programs. In 1986, the total annual operating budget for state fish and wildlife agencies was $1.2 billion. However, FY 1987 nongame program budgets were only $43 million. Thus, annual nongame expenditures appear to be only a minor portion (4 percent) of state agency total budgets.

This disproportionate spending level is, however, appropriate because more than 70 percent of the annual budgets of state fish and wildlife agencies is provided directly by sportsmen through license fees and excise taxes.

The point is, now is the time to expand the funding base for state fish and wildlife agencies in order that management actions necessary for the conservation of all wildlife species can begin.

Funding Needs

The above-referenced NWF survey also assessed funding needs of the states' nongame programs. Nearly all states surveyed noted that, to adequately meet their nongame funding needs, their programs would require a minimum of 100 to 300 percent more money than they now receive (Table 5). This, combined with the finding that states presently spend approximately $43 million per year on their nongame programs, indicates that at least $88 million in new funds will be required annually for the states to implement fully their nongame programs. Because the Fish and Wildlife Conservation Act presently provides three federal dollars for every state dollar, a federal appropriation of at least $66 million (75% of $88 million) is needed to fund state nongame programs adequately. The NWF recommends that the authorization for $5 million in the Act be amended to $100 million, so that when funding becomes available, further revision of the Act will not be

necessary.

The estimate of $66 million per year in new federal funds for state nongame programs is conservative for three reasons. First, the estimate is considerably lower than the $100 million in new federal funds called for by the U.S. Fish and Wildlife Service three years ago. Second, many state nongame programs are so new and so small that they are simply unable to even inventory their wildlife resources so that estimates of funds needed are likely to be biased low. Finally, and perhaps most significantly, very few states included the costs of land acquisition in their estimates of needed funds. States will need considerably more federal dollars before they are able to acquire essential habitat for nongame wildlife.

Central to the issue of funding is how the states would spend federal monies provided by the Fish and Wildlife Conservation Act. To answer this question, the NWF asked states to provide specific examples of nongame activities they consider critical to a comprehensive nongame program (Table 6). We also asked what the costs of these activities would be. Many states had difficulty answering these questions, in part, because of a lack of federal funds needed by many states to initiate inventories of their wildlife resources.

The states identified six major categories of nongame program funding needs. These included staffing, habitat and population surveys, implementation of recovery plans, information and education programs, land acquisition, and urban wildlife programs. In addition, some states indicated they would use funds for research, equipment and planning. These needs are not necessarily comprehensive and will increase and change as state inventories and planning programs are completed.

Funding Options

Funding for state fish and wildlife programs traditionally has been provided, in large part, by sport hunters and fishers. Considering the broad spectrum of Americans who enjoy all wildlife and the insufficient funds available for nongame wildlife managment, funding levels and funding options for state fish and wildlife programs must be expanded. Presently, there are several possible options for funding the Fish and Wildlife Conservation Act.

One such option is appropriation of general revenues. The NWF has supported this option and continues to seek the appropriation of general revenues for this important Act.

Federal excise taxes modeled after the very successful Federal Aid in Wildlife and Fisheries Restoration Programs are another possibility and could benefit wildlife, the public, and industry.

Another option is the use of that portion of the federal

fuels tax which is derived from gasoline sold for purposes other than travel on the nation's highways. The NWF also believes that revenues from the sale of semi-postal stamps could generate a portion of the funds needed for the Act. Finally, another potential funding option is the use of revenues from mineral development on acquired lands of the United States.

The NWF urges this subcommittee to evaluate seriously these and other funding options and move forward to secure funding for the Fish and Wildife Conservation Act. We are prepared to work with the subcommittee on this initiative. It is critically important that the funding be adequate and stable to ensure the wise managment of our precious wildlife resources.

CONCLUSION

To conclude, current funding for state nongame programs is unreliable and inadequate. Unless a source of funding that is adequate, stable, and dependable can be found, nongame wildlife programs will continue to languish and the resource these programs are intended to foster will continue to suffer.

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Table 1. Threatened and Endangered Species of Animals in the U.S. as of September 1987.

Category	Endangered	Threatened
Mammals	27	5
Birds	60	7
Reptiles	8	11
Amphibians	5	4
Fishes	40	25
Snails	3	5
Clams	28	0
Crustaceans	5	1
Insects	8	7

Table 2. Number of species listed by selected states as endangered, threatened and special concern.

	Number of Species		
	Endangered	Threatened	Special Concern *
Massachusetts	23	17	29
Michigan	29	40	72
New Jersey	31	15	27
New York	32	18	33
Texas	44	64	51
Washington	21	15	27

* This category title varies from state to state: New Jersey-Declining; Texas-Watch list; Washington-State Sensitive Species.

Table 3. Animal species in the United States removed from the federal threatened and endangered species list. Modified from USFWS, 1987.

Species Common Name	Reason for Delisting
Mexican Duck	Original data in error
Tecopa Pupfish	Extinct
Longlaw Cisco	Extinct
Blue Pike	Extinct
Santa Barbara Song Sparrow	Extinct
Pine Barrens Treefrog	Original data in error
Sampson's Pearly Mussel	Extinct

Table 4. Effects of competing check-offs on nongame wildlife revenues.

	Number of states	Total nongame contributions dollars (millions) 1983	1984	percent change
States with competing checkoffs added in 1984	7	1.095	0.915	-16.5
States with previously existing competing checkoffs	9	2.344	2.325	-0.8
States with no competing checkoffs	14	5.075	5.205	+3.0

*from Schaefer (1986).

Table 5. Current funding levels and needs of state nongame programs ($000's).

State	FY 1987	TOTAL FUNDING NEEDS
Alabama	90-110	700-800
Alaska	270	NA
Arizona	500	1,900
Arkansas	131	NA
California	17,000	60,000
Colorado	850	2,950
Connecticut	141	500
Delaware	61	268
Florida	1,500	2,150-3,150
Georgia	40	320
Hawaii	10-12	200-300
Idaho	130	600
Illinois	1,500	3,000
Indiana	400	1,000
Iowa	130-140	800-1,000
Kansas	130-150	600
Kentucky	100	385
Louisiana	75	200
Maine	100	1,000
Maryland	150	300-500
Massachusetts	400	1,000
Michigan	500	1,500-2,000
Minnesota	750	1,500
Mississippi	51	500
Missouri	2,500	4,500
Montana	55	350-750
Nebraska	260	560-710
Nevada	218	436
New Hampshire	0	30-40
New Jersey	450	3,000-4,000
New Mexico	250	500
New York	7,000-8,000	17,000
North Carolina	320	550
North Dakota	40	100
Ohio	500	1,500
Oklahoma	130	300-500
Oregon	600	4,000
Pennsylvania	690	2,500
Rhode Island	30	130-150
South Carolina	375	700
South Dakota	65	300
Tennessee	90	616
Texas	175	2,855
Utah	870	2,000
Vermont	90	190
Virginia	795	1,000
Washington	1,000	2,000
West Virginia	162	566
Wisconsin	200	1,000
Wyoming	1,500	3,500
Total	**$43,374-44,426**	**$131,556-135,436**

1 Includes some monies spent on threatened and endangered species.
2 Represents sum of FY '87 budget (Col. 1) plus increases needed.
3 NA - Not Available
4 Funding levels and needs consist of monies not designated specifically for hunting and trapping user groups.

Table 6. Examples of state nongame program needs.

Unless the activity is designated as a "project," dollar values are annual funding needs. Not all activities could be quantified in dollars (NA = dollars estimates not available). Costs of land acquisition are not included. Funding levels are approximate and should not be considered official state estimates.

State	Activity	Estimated Costs ($000's)
Alabama	Population inventory	300-325
	Biologists and support staff	200-250
	Small grants program	50
Alaska	Education and information	NA
	Research	NA
	Biologists and support staff	NA
Arizona	Biologists and support staff	577-582
	Research	275
	Education and information	310
Arkansas	Population inventory	NA
	Biologists and support staff	NA
California	Species recovery **	Unlimited
	Biologists and support staff	3,000
	Information/education	1,000
Colorado	Population inventory	1,000
	Transplants	500
	Administration	100
Connecticut	Endangered species inventory	150
	Education and information	100-150
	Environment impact assessment staff	150
Delaware	Biologists and support staff	113
	Population management	35-55
	Population inventory	25
Florida	Education and information	2,000-3,000
	Biologists and support staff	150
	Population inventory/monitoring	100
Georgia	Population inventory	160
	Urban wildlife	80
	Education and information	80
Hawaii	Rainforest/wetland sanctuary project	190
	Population inventory	65
Idaho	Regional nongame biologists	240
	Population inventory and survey	110
	Education and information	30
Illinois	Biologists and support staff	1,300

Table 6. Examples of State Nongame Program Needs (cont.)

Indiana	Land management contracts	650
	Population inventory	580
	Biologists and support staff	120
	Research grants	75
	Education and information	60
Iowa	Biologists and support staff	150-200
	Research	100
	Urban wildlife	100
Kansas	Biologists and support staff	320
	Land-use inventory (2 year project)	60-100
Kentucky	Biologists and support staff	150
	Research	100
	Education and information	50
Louisiana	Biologists and support staff	60-80
	Small grant program	25-30
Maine	Species recovery	250
	Population inventory	250
	Education and information	200
Maryland	Research	NA
	Urban wildlife	150-300
	Biologists and support staff	70-80
Massachusetts	Biologists and support staff	300
	Population inventory	300
	Education and information	80
Michigan	Species inventory and recovery	700
	Biologists and support staff	400
	Urban wildlife	250
Minnesota	Biologists and support staff	600
	Population inventory	500
	Species recovery	150
Mississippi	Biologists and support staff	60-100
	Information and education	75-100
	Population surveys	50-100
Missouri	Complete natural features inventory	500
	Biologists and support staff	225
Montana	Biologists and support staff	350
	Population inventory	300-400
Nebraska	Biologists and support staff	80-120
	Species recovery	75
	Education and information	40
Nevada	Reptile survey and research	100
	Population inventory	50
	Education and information	30

Table 6. Examples of State Nongame Program Needs (cont.)

New Hampshire	Biologists and support staff	30-40
	Population inventory and management	40
	Education and information	15
New Jersey	Population inventory	500
	Species recovery	350
	Urban wildlife	250
New Mexico	Fish and invertebrate management	250
	Population inventory	80
New York	Education and information	5,000
	Species recovery	5,000
	Biologists and support staff	4000-5,000
North Carolina	Urban wildlife	110
	Education and information	20
North Dakota	Population inventory	NA
	Species recovery	NA
	Education and information	NA
Ohio	Biologists and support staff	528
	Population inventory	270
	Species recovery	112
Oklahoma	Biologists and support staff	160
	Population inventory	90
	Education and information	50
Oregon	Biologists and support staff	300-1,000
	Population inventory	300-400
Pennsylvania	Biologists and support staff	500-750
	Integration of interagency responsibilities	NA
	Mammal atlas	35
Rhode Island	Education and information	70
	Habitat management	50
South Carolina	Species research, survey, & management	225
	Biologists and support staff	125
	Survey grants and contracts	100
South Dakota	Wildlife observation areas	140
	Urban wildlife	103
	Nongame coordinator	34
Tennessee	Biologists and support staff	238
	Research and management	190
	Education and information	52

Table 6. Examples of State Nongame Program Needs (cont.)

Texas	Biologists and support staff	1,000
	Urban wildlife	400
	Education and information	100
Utah	Research and management	300
	Population inventory	110-150
	Education and information	NA
Vermont	Lake Sturgeon Restoration Project	250
	Small Mammal Atlas Project	100
	Biologists and support staff	75
Virginia	Population inventory	100
	Research	50
	Species recovery	50
Washington	Population inventory	300
	Urban wildlife	200
	Biologists and support staff	200
West Virginia	Biologists and support staff	200
	Population inventory and monitoring	117
	Education and information	134
Wisconsin	Species recovery	675
	Biologists and support staff	325
Wyoming	Research/management	310
	Education and information	60
	Species inventory	30

STATEMENT OF THE FLORIDA GAME AND FRESH WATER FISH COMMISSION
on the need to implement the Fish and Wildlife Conservation Act of 1980
BEFORE THE SENATE SUBCOMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

April 27, 1988
by
Allan L. Egbert, Ph.D, Assistant Executive Director

The Game and Fresh Water Fish Commission is an agency mandated by the State of Florida Constitution and charged with the regulatory and executive powers of the state with respect to wild animal life and freshwater aquatic life.

In many ways, Florida may serve as a mirror that the rest of the country might use to reflect a quickly approaching future. We are one of the largest and fastest growing states in the nation. About 1,000 people move into Florida each day. It takes about 1,400 acres of land to house, feed, dispose of waste, and provide infrastructure for these 1,000, for a total loss or alteration of over half million acres of land each year. Certain unique habitat types, including tropical hardwood hammocks, coastal strand and scrub are in particular danger, because these habitats never were abundant and have become increasingly rare as a result of our increasing growth and development. As habitat losses proceed, we are documenting increased isolation and fragmentation of remaining habitat patches. Population biology tells us that ever smaller populations of animals using these habitats eventually will not be able to meet their requirements for food, water, cover and space, which leads in turn to endangerment and local extinctions.

Status of Nongame Wildlife in Florida

In Florida, since 1980, seven species have been added to the State's endangered species list -- a total of 36 animals are in imminent danger of extinction in our state. We lost one species to extinction last year, the dusky seaside sparrow. Florida panthers hover close to extinction with an unacceptably low population of about 50 individuals despite a hefty annual expenditure on our part of $340,000 to reverse that trend. Since 1980, sixteen species have been added to our list of species of special concern, for a total of 44 in that precarious classification.

The annual Breeding Bird Survey (BBS) has been conducted in Florida by volunteers for the U. S. Fish and Wildlife Service since 1969. It monitors populations trends for 45 percent of the breeding species known to occur in Florida. During the 15-year period from 1969-83, 18 percent (15 species) of the species sampled showed significant decreasing trends. Only four showed strong increases. The birds we are losing are familiar ones and include Florida's state bird, the mockingbird. Red-winged blackbirds and meadowlarks, species once held to be so common they could never be threatened by man, are also declining. Thirty percent of our cavity-nesting birds, including eastern bluebirds, are going downhill. What's worse, the BBS misses

many rare species, known to be declining from other surveys. It concerns us deeply that Florida is losing its birds much more quickly than previously thought.

Mammals, reptiles, amphibians, and fish may be faring even worse than birds. These groups have received less management attention and because they are generally more cryptic and less visible, they have not captured public sentiment as easily or as often as birds.

Our agency staff have documented that 44 percent, or 288 Florida vertebrates out of 659 species in our data base are known to be declining. These are the animals that a well-funded nongame program is intended to aid. With proper resources, we can proactively manage these populations much more inexpensively, with a greater prospect of success, than we could, if we could, were they to decline to endangered status.

We can not conclude that a speedy implementation of the Fish and Wildlife Coordination Act would have necessarily allowed us to alter these facts in the eight years since 1980. Yet, even so, we have learned, for community as well as species conservation, that accurate inventory and a basic knowledge of status is an absolute prerequisite to proactive management. Concrete and credible information clearly makes difficult decisions easier. Without doubt, we would be years ahead in monitoring the status of nongame fish and wildlife and, would now be taking positive measures to conserve some of those species had the Act been implemented and fully funded.

In candor, we in Florida expect the declines to continue. Implementation and full funding of the Fish and Wildlife Coordination Act of 1980 would not have changed the fact that Florida has and continues to be a powerful magnet for people and business. Yet we also know that we can reduce, on some occasions even minimize, the adverse impacts continued growth and development have on fish and wildlife and their habitats, if we have people with the right expertise, armed with credible knowledge and with practical ideas in place. We have had some notable successes on a limited scale, but clearly that work is just beginning.

Those who may doubt that this is possible need only to look at the successes of state fish and wildlife agencies with game species. All it takes is a little focus and predictable, adequate funding.

Economic Costs of Failure to Implement the 1980 Act

The endangerment and loss of species is intangible. Their value is mostly nested in the attitudes and perceptions of people. However, the immediate effect of an increased number of endangered species on our state is an even greater proportion of dollars and time spent by government to stabilize and recover those species. Our citizens demand no less. Our field biologists are commonly diverted from their routine

survey and management responsibilities to respond to crises involving listed species such as bald eagles, burrowing owls, or gopher tortoises. Our Nongame Wildlife Program budget, never intended to finance endangered species work, now contributes $600,000 (more than 40 percent of the annual Nongame Wildlife Trust Fund expenditures) to that end. In the absence of stable Section 6 Endangered Species federal contributions, or a fully funded 1980 Fish and Wildlife Coordination Act, we cannot expect this trend to reverse. We have long argued that it is far less costly to maintain a species rather than to attempt its recovery from endangerment. As a society, we continue to respond most dramatically to emergencies rather than take the prudent and relatively inexpensive precautionary steps to avoid such circumstances.

We know that to succeed, conservation efforts must occur long before a species declines to the point that it needs the special consideration afforded by the Endangered Species Act. While individual populations of some endangered species have recovered, only one Florida species, the American alligator, has ever rebounded sufficiently to be delisted. Depending on endangered species recovery as a management tool is costly and fraught with great risk.

Benefits of the Act to Fish and Wildlife

Nongame vertebrates in Florida include an estimated 1,200 different species. Given the size of the list of potential clients, it has been not only necessary but essential to prioritize needs to be certain our limited budget is most effectively used. With 1,200 species, it should be clear that we cannot presently address even a significant proportion of those with the greatest need. Our almost innumerable invertebrate species have received hardly any consideration, a few butterflies being the exception.

Regrettably, the greatest need for nongame fish and wildlife in Florida continues to be basic knowledge. How secure is a species; is it increasing, declining or holding its own; where is it found; and what are its basic requirements for survival? One of the most difficult problems resource professionals face is to adequately convey the dull, often boring message to those in authority what it takes to preclude declines before circumstances become desperate.

Given sufficient resources, we will prepare proactive management plans for the species under our jurisdiction. These actions would document status, condition, and anticipated trends of populations; identify issues, problems and management opportunities for that species or species group; and describe implementation strategies with a schedule of actions and resource requirements. These plans will be distributed and integrated at every possible level of state and local government and in the private sector.

We specifically need resources to begin active management for species declining in numbers but not yet threatened. The list is too

numerous to recount here, but includes such species as gopher tortoises, eastern bluebirds, woodpeckers, and other cavity nesting birds, and the many species of small reptiles and amphibians that are unique to Florida.

People and their active interest and participation will be integral to fish and wildlife conservation in our state. Expanded resources would allow us to enlarge our urban wildlife management program, a must in a state as highly urbanized as ours. Wildlife would benefit indirectly from the enhanced opportunities we could offer to citizens to observe wildlife, as people's appreciation and understanding increases. We have ambitious plans for a proactive educational campaign based on the results of marketing research that we have funded that would advance our citizenry from awareness of wildlife conservation issues to informed and intelligent action on behalf of fish and wildlife.

Benefits to the Economy and People of Florida

We have documented thoroughly the benefits ecologically healthy, diverse, and stable fish and wildlife populations mean to the citizens of Florida and our economy.

Floridians are well aware of the impacts massive growth is having on our wildlife and natural environment. In a recent study on public perceptions of Florida's growth problems, two Florida State University professors found that Floridians are more concerned about the impacts of Florida's growth on the loss of our natural environment than other problems this growth causes, including crime and higher taxes. Opinion poll after opinion poll tell us that Floridians have a surprisingly deep attachment to the state's wildlife. In a recent analysis of public opinion polls concerning wildlife conservation, we found that in every study a majority of Floridians supported increased wildlife conservation efforts, including increased government spending on wildlife and the natural environment. For example, 68 percent of Floridians believe funding for environmental protection should be increased -- not kept at present levels, but increased -- according to the Florida State University's Annual Policy Surveys.

Floridians understand that healthy wildlife populations contribute to a high quality of life -- from the pleasures of seeing birds at their backyard feeders to watching pelicans, gulls, and bottle-nosed dolphins while they are at the beach, or great blue herons, bald eagles and ospreys while they are near a marsh. Wildlife is so important to Floridans they have even taken on some local issues themselves. In Volusia County, residents recently voted to protect the environment and the wildlife it supports by voting to tax themselves to save environmentally sensitive lands. In Cape Coral, city children have taken it upon themselves to preserve a nongame animal which is quickly disappearing from the county -- the burrowing owl. They have sent letters to state and local officials, written plays to teach people

about the owl and have changed their school mascot to the burrowing owl. But the problems facing our wildlife are just too big for these scattered efforts. Floridians look for leadership, direction and assistance from conservation agencies on wildlife conservation issues, and we simply do not have the resources to adequately fill the void.

Florida's nongame wildlife provides Floridians, residents and seasonal visitors alike, with a variety of recreational activities. Not only does wildlife afford recreation, but wildlife-related activities contribute tremendously to the state's economy. Over six million adults, about 67 percent of Florida residents, engage in wildlife-related recreation activities such as birdwatching, bird feeding, and taking field trips to view wildlife. Each year these individuals spend money on field guides, binoculars, and bird seed for a total contribution of more than $1.3 billion annually into the state's economy. If combined with all fish and wildlife recreational activities, such as fishing and hunting, wildlife-related recreation pumps 5.2 billion dollars annually into Florida's economy. Wildlife is big business in Florida. All this fails to consider the role these resources play in attracting tourists, some 35 million annually.

Yet, because of our budget constraints, we at the Florida Game and Fresh Water Fish Commission do relatively little to enhance and promote the activities of wildlife enthusiasts. If properly funded, we would facilitate wildlife-people interaction through a watchable wildlife area program, Florida-specific viewing and field guides, and adequate information and education programs.

If we were able to do so, many more dollars could be injected into Florida's economy as citizens and tourists alike participated in the recreational activities and the quality of life that attracted them to Florida in the first place.

Benefits of a Federal-State Cooperative Program

The implementation of the Fish and Wildlife Conservation Act of 1980 with a stable and predictable funding source is the most significant step Congress could take to facilitate an effective federal-state partnership for fish and wildlife conservation in Florida. Like most states, Florida prepared to institute a fully funded federal grant program for nongame wildlife management in response to the passage of the 1980 Act. In 1983, the Florida Legislature passed the Nongame Wildlife Act, which established a Nongame Wildlife Trust Fund, provided monies and established uses for the fund, and created a Nongame Wildlife Advisory Council.

However, throughout our discussions on this legislation, we pointed out the promise of additional financial assistance made possible by the Fish and Wildlife Coordination Act of 1980. Our state funding mechanism was never intended to stand alone and it is insufficient to meet the tremendous conservation needs of nongame fish

and wildlife in Florida. Recent projections indicate that our recurring expenditures will outstrip income to the trust fund within one and a half to four years. At that time, without federal matching dollars, not only will we be unable to undertake necessary expansion, but we will be forced to pare back our current programs. With the pressures on Florida fish and wildlife, and their habitats greater than ever, this would be poor stewardship indeed.

One thing we would not welcome is a funding approach similar to the Section 6 Grants of the Endangered Species Act. The uncertainty of fund availability and the year-to-year changes in funding priorities make Section 6 endangered species projects a year-to-year proposition. This process is not designed to encourage long-term, full-scale commitments to species recovery, which is clearly needed if endangered species conservation is to be successful.

We would welcome the prospect of a stable and effective federal-state cooperative program in Florida that would result in a wide-ranging fish and wildlife conservation effort, but we would insist on being full partners.

Funding the 1980 Act

A 1987 survey Funding State Nongame Programs: How Much is Enough? of all 50 state agencies by the National Wildlife Federation assessed funding of the states' nongame programs. The study indicated that the states spent $43 million in FY 1987 on nongame wildlife programs. In Florida, our current budget is for $1.5 million for FY 1987-88. The Fish and Wildlife Conservation Act would provide three federal dollars for every state dollar, so a federal appropriation of at least $66 million is needed to fund state nongame programs adequately. The United States General Accounting Office has analyzed two options for the 1980 Act. Others have been discussed as well.

From our experience, we believe the most successful funding source is one which is tied in some way to the wildlife resource. It should not be voluntary or optional, and must be adequate, stable and dependable. Our irreplaceable wildlife deserve no less.

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Senate.sp
4/20/88

THE STATE OF WYOMING

MIKE SULLIVAN
GOVERNOR

Game and Fish Department

BILL MORRIS
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Testimony of

The Wyoming Game and Fish Department

Before the

Committee on Environment and Public Works

United States Senate
Washington, D.C.

April 27, 1988

Funding for the Fish and Wildlife Conservation Act
of 1980

Headquarters 5400 Bishop Boulevard, Cheyenne, Wyoming 82002

Introduction

The Wyoming Game and Fish Department, hereafter referred to as the department, is respectfully submitting this statement to express our concerns for the need to fiscally implement the Fish and Wildlife Conservation Act of 1980. This is not a fund raising endeavor for Wyoming. Rather, it is an attempt to explain Wyoming's situation and present an example of what other state wildlife agencies may be considering.

Wildlife Resource Needs

Wyoming is unique in its abundance and diversity of wildlife. Nearly all of the species that were found in the Central Rocky Mountain Region in 1800 still exist here. Yet planning efforts by the department have identified numerous problems that need to be addressed and strategies that need to be implemented if we are to maintain this uniqueness and wildlife diversity (WGFD 1987a, 1987b).

Excluding threatened, endangered and game species, 60 species of birds and mammals have been identified as being in need of special management attention. These 60 priority species are either species with small isolated breeding populations considered vulnerable, species with declining populations or habitats, species with populations that could be significantly impacted by human disturbance, or species for which little information is available but concern has been expressed. Examples of some of these species and management concerns are presented in Appendix I.

Some of Wyoming's uniqueness can be attributed to the presence of ecosystems that are more common to northern regions of the continent than the lower 48 states. Species such as the wolverine and lynx are representatives of these unique ecosystems that can be found in Wyoming. Wilderness has also contributed to the uniqueness of Wyoming wildlife. Species such as the trumpeter swan avoided persecution in Wyoming that was common throughout more populated regions in the United States around the turn of the century.

Regardless of the reasons, Wyoming is host to a number of relatively small populations of unique wildlife species. Due to the dynamics of small population biology, some of these populations are extremely vulnerable and will require specialized and expensive management techniques (Oakleaf and Harju 1988).

Wyoming provides habitat for some species, like the ferruginous hawk, with healthy, apparently stable, populations. However, other states within the species range have documented significant population declines. Although species such as the ferruginous hawk are assigned lower priority for Wyoming funding, federally funded programs could increase Wyoming's efforts for maintaining national or regional population objectives.

One of the highest priorities of Wyoming's extended wildlife program is to maintain an adequate inventory of all wildlife species to ensure that species in need of special management are identified early. Only by early identification and specific management planning can we avoid the costly situation of intensive management. Along with inventory information, data on biological and habitat needs are being accumulated. These needs are being incorporated in recommendations concerning land use plans, proposed projects and federal management systems.

Significant amounts of time and funding are extended by department personnel to provide input relevant to federal programs. Projected federal funding assistance will not only improve the quantity and quality of department input, but will contribute greatly towards meeting a perceived federal obligation by the public.

Fiscal Perspective

Wildlife found in Wyoming and managed by the department includes approximately 110 species of mammals, 434 species of birds, 78 species of fish, 12 species of amphibians, 28 species of reptiles, and an undetermined number of mollusk and crustacean species. Approximately 15% of these 662 species are considered game. This 15% has directly generated over 81% of the department income during FY 83-87 (Appendix II) in the form of license sales and federal matching monies. There are seven species of birds, mammals, fish, and amphibians in Wyoming federally classified as threatened or endangered. Section 6 matching funds for these species accounted for less than 0.8% of the FY83-87 income. Significant amounts of income cannot be directly associated with over 73% of the species managed in Wyoming.

Consumptive users spent an estimated 4.6 million days hunting and fishing in the state during 1986 and contributed approximately $218 million to the state's economy. In addition to hunting and fishing, some species of Wyoming's wildlife resource are subject to commercial harvest in the form of trapping or commercial fishing.

Nonconsumptive users spent an estimated 20.4 million days in observation, photography, and study of wildlife in Wyoming annually. Expenditures attributable to these nonconsumptive users total approximately $675 million annually (WGFD 1986). We feel this contribution to Wyoming's economy could reach approximately $1.5 billion by 1991. These expenditures could constitute 15-20 percent of the total Gross State Product.

Based on the previous figures and FY83-87 income, over 51% of department income was directly generated by only 18% of the total wildlife user demand, as measured in recreation days, and associated with only 25% of the wildlife user contribution to the state's economy.

Since 1979, the department has aggressively attempted to obtain funding which would be tied to user demand, user expenditures in the state or taxes on industries impacting the state's ecosystem. All attempts have met with an overwhelming amount of problems and eventual failure. Confounding the funding problem is the fact that over 90% of the user demand comes from nonresidents and approximately 50% of all wildlife species found in Wyoming are migratory and require federally coordinated programs. Both the complexity and nature of the funding problem dictates a strong national leadership for adequate resolution.

Wyoming Game and Fish Department Programs

The department continues to seek funding for extended wildlife management even though national leadership has been pending since 1980 and instate attempts in the past have failed. The often used state tax checkoff is unavailable since Wyoming has no personal income tax. However, because the department is an autonomous state agency, the Commission created what is now commonly referred to as the internal Wildlife Trust Fund which currently has an inviolate corpus of $5.3 million, the interest of which can only be used for habitat acquisition or improvements and new nongame/nonconsumptive use projects. The Wildlife Trust Fund is structured in such a way as to facilitate donations from any and all potential contributors. In 1986, when the fund was established, $2 million of department revenues was used as "seed money." The money came from four sources: 1) sale of conservation stamps which are required for all license holders; 2) sale of publications; 3) gifts and donations; and 4) interest from investments. In 1987, the Commission placed an additional $3 million into the Wildlife Trust Fund. Future fiscal projections anticipate placing about $2 million per year in the fund utilizing the same revenue sources. During 1988, interest earnings will exceed $350,000.

Although funding directly allocated to nongame wildlife management is relatively new, the Wyoming Game and Fish Department and many sportsmen have long recognized the needs for such management. This need is defined by Wyoming Statutes (Appendix III), the principals of functioning ecosystems (Crowe 1979, Oakleaf 1979), pressures on Wyoming habitats (WGFD 1986b) and an ever increasing public demand (WGFD 1986).

Wyoming's response to this need began in the mid 1970s with a firm commitment by the department's administration which continues today. Over 70% of the field biologists and staff presently employed by the department have been hired since 1975 to replace attrition or fill new positions. The hiring protocol has been to avoid game specialists and build a work force of highly trained biologists with a broad background in wildlife management. In 1977, a nongame biologist was hired and a nongame program was initiated (Oakleaf 1977). Funding limited the program as the department struggled with the chicken and egg syndrome of which comes first . . . the product or funding to produce the product. Between 1977 and 1986, the department was able to address many of the major resource needs and present a prototype of an extended wildlife program (Appendix IV). However, an extended funding base could not be developed.

During 1985-88, nongame and nonconsumptive use efforts are being greatly expanded in Wyoming. We are moving further away from the fiscal strategy of "pay your own way first" towards one of "money will follow opportunity." The cornerstone of this strategy is embodied in the underlying premise that the future effectiveness of the department, indeed the future of the wildlife resource in Wyoming, depends upon broad-based public support. That support is expressed in both political and fiscal strength. With most huntable populations at or near objective levels, the chances for significant growth in the consumptive sector are unlikely in Wyoming. Nonconsumptive use, on the other hand, has almost unlimited potential for attracting and maintaining a large percentage of the populace. There will be no reduction in emphasis of traditional constituencies and their interests; rather there will be expansion of non-traditional constituencies by tailoring programs which encourage broader public interest and maintain the resource base of this interest.

The obvious risks inherent with this strategy can be greatly reduced by federal assistance which provides a reliable funding base. The risks are great, but the lack of federal attention and increasing resource and public demands leaves the department with little choice but to take such calculated risks.

The department's approach toward extended wildlife management has been to incorporate nongame duties with other duties for all field personnel, staff and administration. We are striving for personnel and programs that provide for comprehensive management of all wildlife and not just favored species. By July 1988, each of the 28 district biologists and wildlife coordinators will have at least one man month of nongame time in their annual work schedules. In addition to collecting biological data, field personnel include all wildlife in their evaluation and recommendations concerning proposed projects, potential environmental impacts and mitigation.

We now have two biologists and one coordinator who are assigned full time to the nongame program. Their primary duty is to ensure that department personnel receive adequate training and assistance to enhance their effectiveness in nongame portions of extended wildlife management. Nongame personnel also provide coordination with other states and federal agencies, volunteers collecting valuable nongame information and intensive projects which require specialized expertise. Nongame personnel are also responsible for program planning and recommending priorities (WGFD 1987a).

Since nongame work is integrated in the activities of four divisions and at all levels of the administrative staff, a separate budget is not projected. Rather, we budget for functional units (personnel and geographic locations) of operating and maintenance programs. We do, however, monitor the costs of different programs separately. The monitoring system includes prorating calculations to include costs that are difficult to assign to any one program (i.e. administration, overhead and duties that involve many species or groups of species). Current expenditures for the nongame programs and threatened and endangered species are presented in Figure 1. Expenditures for these programs have averaged approximately $1.5 million annually since 1983 ($1.0 million and $0.5 million for T/E and nongame/nonconsumptive use programs, respectively). Annual management costs for nongame and threatened and endangered species could exceed $3.5 million, if adequate funding sources are developed and management plans are fully implemented. If management objectives are obtained, costs of endangered species programs should stabilize or decrease while cost of nongame and nonconsumptive use programs should increase, and stabilize over the $3.5 million mark.

The department does annually budget for specific new projects above and beyond maintenance and operation budgets. These projects are termed enhancement projects. Such projects that are nongame or nonconsumptive use oriented are eligible for funding from the previously discussed internal Wildlife Trust Fund.

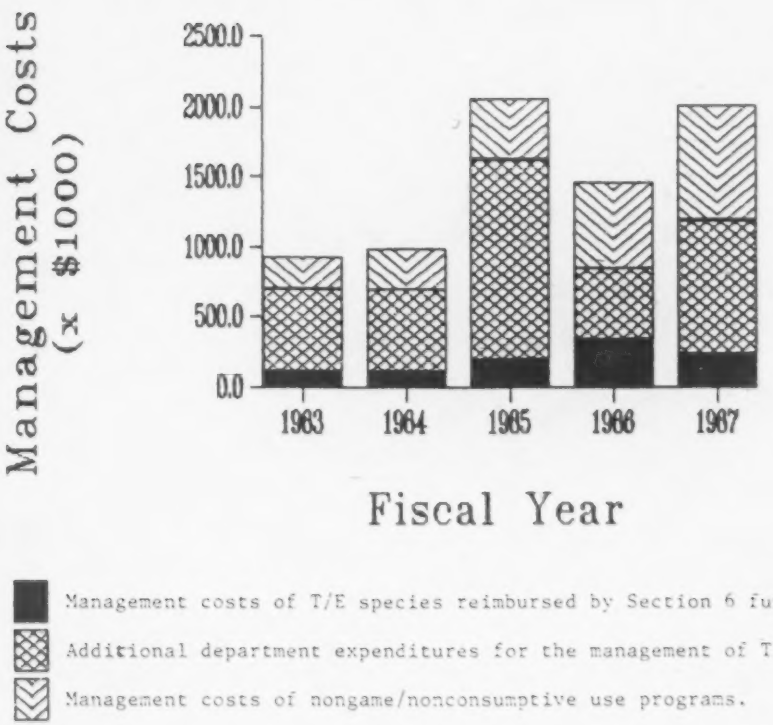

Figure 1. Management costs of nongame and threatened and endangered species, Wyoming Game and Fish Department.

[illegible] used to develop a program for nonconsumptive use in Wyoming (Kruckenberg 1988). There are several aspects of this project, both in terms of design and administrative philosophy, that set it apart from others. It is first and foremost a "nonconsumptive use of wildlife" program, one encompassing both game and nongame species. It therefore has removed most, if not all, potential conflicts which inherently come when "sportsmen's dollars" are used to fund "nongame" efforts. Among Wyoming's visible and popular watchable species are those big and trophy game species for which the state is so well renowned. For example, elk are a premier big game species, but elk are used by both elk hunters (consumptive users) and the people who ride sleighs to view and photograph elk on the Greys River Habitat Management Unit near Alpine, Wyoming (nonconsumptive users). Nonconsumptive use transcends game/nongame status to include all species of wildlife in Wyoming.

The program also acknowledges wildlife as a valuable economic commodity for the state and as a growth industry - and who better to direct those activities than the state wildlife management agency. In order to compete successfully at the marketplace with other resources and leisure pursuits, however, the program endorses a marketing strategy. Primary emphasis of the program is focused on the economic return to the entire "state", while secondary emphasis is directed toward economic return to the "department." Obtaining significant economic return for the department will be difficult. Yet, the department is aggressively attempting to develop means for non-traditional supporters to contribute directly to the state's nonconsumptive use program (Kruckenberg 1988).

Summary

The Wyoming Game and Fish Department does not rely on Pittman-Robertson and Dingell-Johnson federal aid to fund large portions of game programs (Appendix II). We are not relying on additional federal aid to completely fund the extended portions of Wyoming wildlife management. However, federal aid does significantly contribute to our game programs and when viewed in a historical perspective, federal aid provided by Pittman-Robertson and Dingell-Johnson Acts is considered to be a major turning point in the history of wildlife management. Funding from these two acts was a major thrust that elevated wildlife management to a level commensurate with resource needs and user demands. In addition, Figure 1 clearly shows the fiscal stimulus associated with federal funding for endangered species programs.

[illegible] the Fish and Wildlife Conservation Act of 1980 with adequate appropriations could become as significant in the history of wildlife management as the previous acts.

In summary, our testimony has not directly related problems associated with lack of implementing the Fish and Wildlife conservation Act of 1980. Lack of such rhetoric is partly due to the long term nature of many problems and our desire for preventive management. In addition, Wyoming, like many other states, has addressed wildlife conservation problems as they develop within their states. This effort will continue, regardless of federal funding attention to problems that require a national perspective. The only question is: "How long can this situation continue at an effective level, considering the limited economic resources of states like Wyoming?"

We have also refrained from recommending funding mechanisms to implement the 1980 Act. The expertise and responsibilities lie with Congress. The department will continue to concentrate its efforts on developing funding mechanisms within Wyoming. We challenge Congress to develop adequate mechanisms and levels of funding to encourage maintenance of desired wildlife numbers and extended wildlife management in the United States.

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APPENDIX I. Examples of Priority Species in Need of Special Management in Wyoming and Management Concerns.

Trumpeter swan

The trumpeter swan is a long-lived species with a low reproductive rate that depends on healthy wetlands and low levels of human disturbance. Wyoming's trumpeters are a part of a mostly closed, small population with a restricted range and does not readily pioneer unoccupied habitat. It is susceptible to losses due to diseases, habitat degradation and increased human disturbance. Management efforts are directed toward expanding the occupied range by translocating birds while at the same time improving occupied habitat to increase production. Additional federal funding will allow for enhanced efforts to expand numbers and distribution to biologically secure levels.

Colonial nesting waterbirds

There are 11 priority species of colonial waterbirds nesting in Wyoming. For most of these species, there are only a few known breeding locations in the state; and many of these are on private lands that are susceptible to land uses that could jeopardize the colonies. In addition, these species are sensitive to human disturbance during the nesting period. Therefore, loss of colonies is possible. Management emphasis concentrates on locating colonies, recommending measures for protecting them and monitoring population trends. Additional funding would allow for habitat development and acquisition, clearer delineation of key habitats for foraging and a more complete definition of potential threats.

Common loon

The common loon's population nationwide has been declining due to loss of nesting habitat, human disturbance of nesting birds and exposure to environmental contaminants. Little is known about the breeding population in Wyoming. The known population is restricted to the northwestern corner of the state with less than 20 breeding pairs. This species, like the trumpeter swan, is a long-lived species with a restricted range, low productivity and sensitivity to human disturbance. Management emphasis is on locating nesting areas, recommending protective measures and monitoring population trends. Additional funding would allow for detailed monitoring necessary for detecting subtle but important predictive changes in this small population. Intensive study would also allow for a more complete definition of the population and key habitats requiring special management.

Appendix I. (Cont.)

Burrowing owl

The burrowing owl nests in burrows of prairie dogs or other burrowing animals, although it is most abundant in prairie dog colonies. Population declines throughout is range have been attributed to prairie dog control programs, which reduce available habitat by reducing prairie dog colonies and can cause secondary poisoning of these birds through their consumption of smaller prey that consume poison bait. Management emphasis is on monitoring population trends and maintaining habitat.

Ferruginous hawk

The ferruginous hawk has a stable population in Wyoming of approximately 800 nesting pairs. However, populations in most other states and provinces within its range have smaller populations and have experienced historical declines in the numbers of nesting pairs. This species is sensitive to human disturbance during the nesting period. Management emphasis in Wyoming is on maintaining nesting habitat and monitoring population trends. Additional funding would allow us to determine factors in Wyoming conducive to healthy populations and that insure a stable number is maintained as a reservoir for adjacent states.

Juniper species

The pinyon-juniper ecosystem of the southwestern states extends northward into the southwest corner of Wyoming. The wildlife community in this small area contains a number of juniper-obligate species not found elsewhere in Wyoming, including the scrub jay, ash-throated flycatcher, plain titmouse, bushtit, gray vireo, Scott's oriole, cliff chipmunk, canyon mouse, and pinyon mouse. Loss of this habitat would mean a significant loss of species of Wyoming's fauna. Additional funding would allow for a more precise definition of habitat requirements of these species in the Wyoming portion of the ecosystem, which may differ significantly from areas toward the center of their range.

Appendix I. (Cont.)

Black-backed woodpecker

The black-backed woodpecker is a species which reaches its peak of abundance in recent burns of old-growth coniferous forests. It is also found in unburned forests providing the optimum density of snags and conditions for good insect abundance. This species is an indicator of properly managed old-growth forest in Wyoming. Additional funding would allow for a more precise definition of habitat requirements to provide guidelines for forest management.

River otter

The only data on river otters in Wyoming are found in trapping records. When trapping was closed in 1952, information on the species' distribution and abundance was no longer available. Incidental reports of observations continue to indicate the species persists within the state, but estimates of otter numbers and current distribution are not possible. Activities affecting otter habitat include the removal of resting sites and shoreline cover, drainage of wetlands, and construction of dams. These practices also affect fish populations on which the otters feed. Additional funding would enable surveys to determine current habitat and the development of monitoring efforts to assure the existing population is not declining.

Wyoming bats

Of the 13 species of bats known to occur in the state, the status and habitat requirements of 10 species are not known. These are species that should be included in resource management planning, but limited information hinders such consideration. Additional funding would enable identifying important habitat such as communal roosts and verifying the occurrence of rarely collected species such as the California Myotis, Yuma Myotis, and the Spotted Bat.

APPENDIX II. Wyoming Game and Fish Department Average Annual Income for Fiscal Years 1953-57.

INCOME SOURCE	AVERAGE ANNUAL INCOME ($ Million)
* License Sales	15.0
* Federal Aid	4.2
Federal, Endangered Species (Section 6)	0.2
Interest	2.7
** Conservation Stamp	1.0
Misc.	0.6
Total	23.7

* Income generated directly by game species.

** Required for all license holders, but also sold to other wildlife supporters who do not hunt or fish.

APPENDIX III. Wyoming Statutes Relevant to Extended Wildlife Management

Wyoming Statue 23-1-103 stipulates: All wildlife in Wyoming is the property of the state. It is the policy of the state to provide an adequate and flexible system for control, propagation, management, protection and regulation of all Wyoming wildlife. Wildlife is defined as all wild mammals, birds, fish, amphibians, reptiles, crustaceans, or mollusks, and bison designated by the Wyoming Game and Fish Commission and the Wyoming livestock board within Wyoming (Wyoming Statutes 23-1-101). Therefore, this mandate includes both game and non-game wildlife.

The Wyoming Game and Fish Department, under the direction of the Game and Fish Commission, is responsible for the fulfillment of this mandate.

The expressed legal charges to the Commission and the Department are given in Wyoming Statute 23-1-302. Implicit in these charges is the responsibility by the Department to provide the public with optimum benefits from available wildlife.

APPENDIX IV. Projects accomplished by the Wyoming Game and Fish Department that are directed toward fish and wildlife species that are not hunted.

PROJECT	PURPOSE AND BENEFITS
Matrix for ranking species according to management priority	Determines degree of management attention needed for bird and mammal species based on population status, distribution and habitat stability.
Nongame Bird and Mammal Strategic Plan	Provides management direction and prioritizes work on nongame birds and mammals.
Wyoming Avian Atlas	Provides information on seasonal distribution, habitat use and abundance of birds. Information is used for enhancing nonconsumptive recreation by the public as well as by resource management agencies for determining the effects of management actions on nongame birds.
Working Draft of the Wyoming Mammal Atlas	Provides information and uses similar to the Avian Atlas.
Amphibians and Reptiles of Wyoming	Presents an account of the distribution and habitats of amphibians and reptiles in Wyoming. Uses similar to the Avian Atlas.
Breeding Bird Survey	Provides bird abundance and distribution trend data on a statewide basis and contributes to the national data base. Trend data are used to determine the need for management attention.
Osprey surveys	Provided data on osprey production and determined that osprey populations in Wyoming were stable and were not in need of special attention.
Trumpeter swan surveys and habitat management	Biologists monitor swan habitat use and production and recommend and implement habitat improvement and protection measures.
Raptor nesting files	Files and maps of raptor nests were set up for use in environmental impact evaluations and management activities.

Appendix IV. (Cont.)

Raptor nesting surveys	Raptor nesting surveys were conducted in the Medicine Bow, Jackson, and Hanna areas. Statewide population estimates, using all available surveys, were made for higher priority species to establish a baseline population level and to indicate management attention needed.
Colonial waterbird surveys	Statewide surveys and historical records were used to determine distribution, abundance and production of colonial nesting waterbirds in Wyoming. Information is used to indicate where protection or habitat improvements are needed and to track population trends.
White pelican study	Determine the population status, reproductive success, food habits, foraging areas, prey availability, and movements of white pelicans nesting in central Wyoming. Information is used to inform public of pelican food habits and to determine management considerations.
Prairie falcon study-effects of changing land use	Provided information on the habitat used by an isolated population near oil and gas development. Was intended to show the response of the falcon population to uranium development; however, no development occurred.
Prairie falcon study-effects of sustained harvest	Providing data on the capability of a prairie falcon population to maintain itself despite long-term sustained harvest of young. For use in determining appropriate harvest levels.
Birds of Jackson Hole Checklist	Provides a checklist for visitors to use that at the same time provides information to resource mangers on bird sightings, abundance changes and seasonal use of the Jackson Hole area.

Appendix IV. (Cont.)

Long-billed curlew study	Evaluated survey techniques and compiled information on the distribution, abundance and habitat use of long-billed curlews. Provides guidelines for future monitoring of populations and for habitat management.
Juniper avifauna study	Determined distribution of bird species using Utah juniper habitat. Information was used to determine which species were obligates on Utah juniper and to delineate crucial habitat for juniper obligates.
Crucial habitat maps	1:500,000 overlays were developed to delineate crucial habitats for nongame birds. These overlays are used to determine environmental impacts of proposed projects.
Aspen avifauna study	Determined numbers and species of birds using aspen habitat types. Value of aspen types to birds were demonstrated, and management recommendations were made.
Riparian bird transects	Transects to monitor bird use of riparian areas have been set up in several areas. These will document long-term changes in riparian communities.
Otter and lynx distribution studies	Compiled information on river otter and lynx distribution in Wyoming. This information is used to provide management recommendations.
Shovel-nose sturgeon movements	Movements of the shovel-nose sturgeon up the Powder River and its tributaries was studied to determine if this species spawns in those areas. This information will be used to develop habitat maintenance recommendations.
T/E Programs	Well publicized threatened and endangered species projects initiated include: whooping crane, peregrine falcon, bald eagle, Wyoming toad, and black-footed ferret.

STATEMENT OF THE INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ON THE REAUTHORIZATION OF THE FISH AND WILDLIFE CONSERVATION ACT BEFORE THE SENATE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION
April 27, 1988
by
Herbert E. Doig, Assistant Commissioner
and President, IAFWA

Thank you, Mr. Chairman and members of the Committee for the opportunity to appear before you to share perspectives on the need for reauthorization of the Fish and Wildlife Conservation Act. My name is Herbert E. Doig, Assistant Commissioner for Fish, Wildlife and Marine Resources with the New York State Department of Environmental Conservation. I also serve as President of the International Association of Fish and Wildlife Agencies and will be presenting testimony for both organizations this morning.

The International Association of Fish and Wildlife Agencies, founded in 1902, is a quasi-governmental organization of public agencies charged with the protection and management of North America's fish and wildlife resources. The Association's governmental members include the fish and wildlife agencies of the states, provinces and federal governments of the U.S., Canada and Mexico. All 50 states are members. The Association has been a key organization in the promotion of the principles of sound resource management and the strengthening of federal, state and private cooperation in protecting and managing fish and wildlife and their habitats in the public interest.

The Association has a long history of support for conservation of all fish and wildlife; was a strong proponent of the initial legislation that resulted in the Fish and Wildlife Conservation Act and has had a leadership role in the reauthorization efforts. The Association created its Nongame Wildlife Committee in 1969 and began work towards a more clearly defined federal role several years prior to that. In 1969 an Association survey indicated that 20 states had personnel assigned specifically to work on furthering knowledge on nongame species.

This survey led to a 1972 Association resolution calling for states to utilize a model statute for establishing nongame programs and for universities to broaden their programs to include instruction and research on nongame species. This in turn led to an 8-year effort concluding in the Fish and Wildlife Conservation Act. Obviously, the State Members of the Association have a demonstrated commitment to nongame programs, and this commitment continues to grow.

The State Members of the Association have the responsibility for all fish and resident wildlife within their respective borders and each are engaged in the constant challenge of improving all their programs, including those for nongame species. The Fish and Wildlife Conservation Act was the catalyst for the states to energize their nongame efforts.

It ultimately served as a framework to use in their state legislatures for requests of revenue for support of nongame programs and for such additional revenue generating programs as income tax contributions (33 states), voluntary conservation stamps and revenues from vanity license plates. While a substantial amount of money is raised each year toward management of nongame, the amount is far short of the need. For example, New York State garners about $1.7 million per year from a tax contribution mechanism for management of fish and wildlife and leads the Nation in revenues collected. New York has assembled a variety of revenue sources and expends about $8 million on programs specifically to benefit nongame species and their uses annually, but the state's yearly needs are still in the realm of $21.5 million. There is currently under way a major initiative designed to provide the resources necessary to meet this need.

Many states as well as New York have committed monies derived from sporting licenses and dedicated to management of game species and hunting and fishing recreation to research and protection of nongame species and their habitats. This has been done with the full knowledge and support of the men and women who purchase those licenses. This demonstrates clearly the desire for comprehensive fish and wildlife programs and brings into focus the need for funding mechanisms that will distribute costs more equitably among all users.

The key issue, however, is not that there is a shortfall in revenue, but that the Fish and Wildlife Conservation Act was the catalyst that made the current programs and funding options possible. While some have questioned the value of the Act absent any appropriations, the Association and its member states know that failure to reauthorize the Act would deal a devastating blow to state nongame programs. It would send a clear message of "no commitment" from the Federal Government and be a serious setback to ongoing efforts to secure funding for needed programs. While states would continue to carry out programs to benefit all wildlife, the spirit of cooperative management of the Nation's fish and wildlife resources would be damaged by the failure of the Federal partner to accept its portion of the responsibility for protection and management of fish and wildlife.

Over the years Congress has met the challenge of shared management and fiscal commitment by creation and support for landmark legislation. In 1937, the Federal Aid in Wildlife Restoration (Pittman-Robertson) Act became the first of several measures that would provide much needed funding for cooperative wildlife management programs. A little over a decade later the Dingell-Johnson Act and subsequently Wallop-Breaux directed excise tax revenues and other Federal taxes toward management of the Nation's recreational fishery resources through cooperative state programs. The Endangered Species Act generated interest and concern for restoration and protection of species under stress and struggling for survival and provided funding, however small, to stimulate cooperative management of these scarce resources. It is now time to close the circle of financial commitment to nongame programs. Such would realize the underlying objectives of the creators of the Fish and Wildlife Conservation Act, to synthesize through a planning process all fish and wildlife programs.

The Association sees three funding opportunities for the Act: 1) an annual appropriation by the U.S. Congress; 2) the revenues from that portion of the Highway Trust Fund that is attributable to gasoline use in small engines; and 3) if Congress decides to develop the Arctic National Wildlife Refuge, an unspecified amount of revenue. While these run the spectrum of potential to practical, the point is that there are ways to fund the Act and the Association and other organizations continue to work on finding the best combination of mechanisms that will satisfy identified needs. The Association believes, and has a position supporting, the small engine fuel tax as a practical means of funding the Act.

The history of fish and wildlife conservation indicates that many of our most important federal legislative efforts have taken many years to fully achieve. For example, the Migratory Bird Treaty Act, the Migratory Bird Stamp Act and both the Federal Aid in Wildlife and Federal Aid in Sportfish Acts took more than 10 years to become reality. We should intensify our efforts to satisfactorily fund the Fish and Wildlife Conservation Act, especially when there is a determination by states and the conservation community to make it work as originally intended. We should not embrace major changes in its intent or attempt to repackage the Act. It has momentum toward broadening fish and wildlife programs to include all species and we should capitalize on that.

To characterize the momentum, some accomplishments of New York's comprehensive wildlife program will provide a typical example. As with most states, a significant portion of the effort is for habitat identification, surveys and inventories. These are important foundations for future management actions. Effective conservation of all wildlife is dependent on a good understanding of each species' biological needs and current status, the availability of proven management techniques and the implementation of innovative educational programs. These are common factors that will form the basis of each state's program once they have adequate funds to properly approach management for all wildlife species.

New York maintains an active program to benefit nongame wildlife, including projects in urban environments, protection of significant habitats and wetlands and identification of rare plant and animal communities through the Natural Heritage Program. Funding is derived from tax contributions as well as license fee revenues and, despite limited funding, the following accomplishments have been realized.

Completion of the state's breeding bird atlas. Soon to be published, the "Atlas of Breeding Birds in New York State" summarizes the results of the six field seasons of data collected by more than 4,000 volunteers organized to determine the distribution of all of New York's breeding birds. This information is important in evaluating the status of species and in protecting those habitats that contain an unusual variety of wildlife or species that are uncommon or rare in other parts of the states.

Surveys and protection efforts on behalf of colonial waterbirds. A comprehensive database for New York's colonial waterbirds (terns, herons, gulls, etc.) has been developed over the last several years. More than 100 colonies of beach and island nesting birds are protected on Long Island and in upstate New York through the cooperative efforts of conservation organizations and the State. Threatened and endangered species, such as the common, least and roseate terns and the piping plover benefit from the use of fencing, signs and educational programs developed to alert the public to the need to protect the habitats of these species.

Operation of the marine mammal and sea turtle stranding program. This program has resulted in the gathering of biological information on many marine species. Without the operation of state stranding programs, the recent die-offs of bottlenose dolphins and humpback whales on the East Coast may not have been detected, nor would the extent and potential ecological ramifications of such die-offs been as well documented and analyzed by marine scientists. In New York, the discovery of many cold-stunned Kemp's ridley sea turtles on the shores of Long Island Sound has led to important research into the role of the Sound in the life history of this critically endangered sea turtle.

The EPA recently announced the removal of the pesticide Diazinon from use on golf courses and sod farms. This action followed research that showed conclusively that this chemical is a significant cause of mortality among a number of species of birds. Much of this work was done in New York and nearly all was the result of fish and wildlife program investment. Yet this is but one of a number of pesticides that are taking their toll on wildlife populations. Funding is badly needed to document these other causes of wildlife mortality and support action that will diminish or eliminate their impact on these resources.

New York attempts to address wildlife conservation needs through a variety of funding sources, but is finding it increasingly difficult because of expanding demands and higher priority attention required for toxic pollution remediation. Primary funding for fish and wildlife programs comes from hunting and fishing license sales along with Pittman-Robertson, Dingell-Johnson and Wallop-Breaux federal aid. While New York uses these funds to implement a comprehensive fish and wildlife program, there is considerable pressure to restrict the expenditure of these funds to those programs that benefit sportsmen. Further, restriction on the allocation of Federal dollars reduces options to fund comprehensive wildlife programs which includes groups of animals such as reptiles, amphibians and invertebrates.

Federal support for conservation actions on listed endangered and threatened species is also in short supply. Of the 21 federally listed species found in New York, funds from Section 6 of the Endangered Species Act support research and management activities on only four listed species and one candidate species, with a total allocation to New York of $33,500. While the Fish and Wildlife Conservation Act excludes work on

federally listed species, New York has identified an additional 29 species that are threatened and endangered and 35 more that are of special concern to the state. Without additional funding for active conservation programs, populations of these species will most likely continue to decline. As populations become more restricted in numbers and range, the cost of restoring them to healthy levels increases.

New York's "Return a Gift to Wildlife" tax checkoff program, unlike most states, is not restricted to funding nongame and endangered species projects exclusively. The flexibility provided by this approach has created expectations among all special interest wildlife groups that Gift funding is the answer to their particular funding shortfall. Proposals for funding have in some years exceeded 140, most of which have worthwhile objectives that would benefit wildlife directly or enable greater appreciation of wildlife through educational facilities or teaching aids. Funding over the five year availability of these monies has only been adequate to support about one-third of these identified needs.

The Association is aware that there may be a recommendation that the Natural Heritage Program have responsibility for the nongame effort or at least be authorized as a direct monetary beneficiary for inventory work and other types of management tasks. We strongly oppose any such proposal. The state fish and wildlife agencies have the authority and expertise for resident fish and wildlife stewardship. The Natural Heritage Programs have been contractors in some states for the accomplishment of various efforts, but if this Nation is to continue to have meaningful and well-planned fish and wildlife programs, the effort cannot be factionalized. Split authority of mixed disbursements of funds would surely lead to that end. The state agencies must continue to be the lead planner and coordinator for all fish and wildlife and, as such, are the logical mechanisms for disbursement of funds if others, such as the Natural Heritage Program, are involved.

The public has a great interest in all forms of wildlife, but that interest has not been satisfactorily channeled and transformed into adequate dollars for nongame programs. Despite the best efforts of the states, species not hunted, fished or trapped will not have adequate management unless more revenues, including federal revenues, are found and directed to these species.

The demand for comprehensive fish and wildlife programming is great. The unmet resource needs are overwhelming. It is time to forge a complete partnership between State and Federal agencies to facilitate accomplishment of fish and wildlife resource conservation objectives to assure perpetuation of all species to the benefit of all people. The Fish and Wildlife Conservation Act presents the best vehicle through which this goal can be achieved.

DEPARTMENT OF INLAND FISHERIES AND WILDLIFE
Telephone (207) 289-3371

April 21, 1988

Senator George J. Mitchell, Chairman
Subcommittee on Environmental Protection
Senate Committee on Environment and Public Works
U.S. Senate
Washington, D.C. 20510

Dear Senator Mitchell:

The Maine Department of Inland Fisheries and Wildlife (MDIFW) has responsibility for all species of wildlife and freshwater fish in Maine, including game animals, game fish, and all species of nongame fish and wildlife. DIF&W's authority does not include plants or marine fish.

MDIFW's history of wildlife management is a long and continually evolving one and one that parallels the situation in most other states. An understanding of this history and evolution helps clarify the new challenges and opportunities facing wildlife management agencies today and demonstrates the importance of the Fish and Wildlife Conservation Act of 1980.

Modern wildlife management can be viewed as evolving through several eras. It began in Maine as a law enforcement effort against illegal taking of game species. The law enforcement effort of the Warden Service began before the turn of the century and continued as the prime focus of the Department's efforts into the 1940's. In the 1940's a second era began as the concept of scientific wildlife management evolved and was applied to game species through the establishment of research and management arms of the Fish and Game agency. These new programs resulted largely from enactment of two key pieces of federal legislation (the Pittman-Robertson (PR) Act and the Dingell-Johnson (DJ) Act) establishing Federal Aid for Wildlife and Fisheries Restoration programs for State agencies.

The effect these two bills had on wildlife and fisheries conservation and management cannot be over-emphasized. They allowed for the establishment of fish and game management programs in every state in the country; they established a very successful state-federal partnership regarding these programs; and they've been responsible for an unprecedented turn around for many of this country's fish and wildlife species particularly game. These successes are due not just to the funding from hunters and fisherman provided to states

State House Station 41, Augusta, Maine 04333 — *Offices Located at* 284 State Street

through these Acts, but also to other key components of the Acts including the State-Federal partnership, planning, coordination, and administrative assistance. There are many success stories from this second era of wildlife conservation.

The third era can be thought of as just beginning and it directly relates to the Fish and Wildlife Conservation Act of 1980. The challenge of this new era facing State Fish and Wildlife Agencies is the conservation and management of the hundreds of species of wildlife not addressed through PR or DJ Programs. In Maine there are about 500 species of vertebrate wildlife. Of these, only about 50, primarily game species, are managed through PR or DJ Programs given their funding limits. Three other species are managed with assistance from Section 6 of the Endangered Species Act. This leaves about 450 species and presents the challenge of the third era. These new challenges result from the changing conservation needs in this country, from new knowledge, and from changing perceptions. Such changes resulted in this Department's legal mandates changing in 1973 to include all wildlife, not just game species. The Department's name was changed from "Inland Fisheries and Game" to "Inland Fisheries and Wildlife" to reflect those changes. Preliminary programs were begun to address the most pressing needs and a state funding base was established, through a checkoff on the state tax form, to help support these new responsibilities.

MDIFW is committed to meeting these new challenges. We are committed to maintaining wildlife for the many values it provides Maine's citizens. These values are substantial and they are economic as well as ecological, social, educational, scientific and aesthetic. The magnitude of the economic return alone, estimated in Maine to be in the hundreds of millions of dollars annually, is justification enough to warrant funding management programs as an investment in the future. However, as committed as Maine may be, the challenges are huge and our resources are limited. We firmly believe that these needs cannot be met without implementation of the Fish and Wildlife Conservation Act of 1980. The just past era of wildlife management was successful because of all the benefits from the PR and DJ Acts: the state-federal partnerships; inter-state coordination; planning; and funding. The Fish and Wildlife Conservation Act of 1980 provides a third, companion bill to the prior two and is the key to increased success in wildlife conservation.

The need for implementation of this Act is critical. Maine is losing its wildlife at the rate of one species lost every 10-14 years. Eleven species are documented as gone and the rate of loss appears to be increasing. Of the 450 nongame wildlife species in Maine, more than 100 require special management to avoid their loss or serious decline and this number is expected to rise as a result of the rapid growth, development, land use changes, and habitat loss occurring in Maine and the Northeast. Seventy-five ercent of these could benefit

from the Fish and Wildlife Conservation Act of 1980. With state funding limited to the voluntary tax checkoff (an unreliable and declining revenue source) most now receive little or no management.

MDIFW has a strong commitment to meeting these new challenges. We have made a significant beginning in the past several years. Our plans are being finalized and we are poised to take further action but we're unable to. One of the major obstacles to further action is the lack of federal support, specifically the lack of implementation of the Fish and Wildlife Conservation Act of 1980. This is a great concern to Maine for there are substantial consequences to not taking action. The consequences of not implementing this Act include:

1. There will be a continuing loss of wildlife in Maine.

2. There will be a continuing loss of critical habitat.

3. An increasing number of species will be added to the Federal and State Endangered and Threatened Species Lists.

4. More costly and complex recovery programs will then be required.

5. More stringent and costly regulations will then need to apply.

6. There'll be an inability to meet the large and growing demand for these species.

7. The values accruing from this resource, including economic return, will decline.

8. Legal mandates (state and federal) will not be met resulting in increasing court actions.

With implementation of this Act, MDIFW and Fish and Wildlife Agencies in other states could significantly improve the effectiveness of their nongame conservation programs. In Maine, for example implementation of the Act would allow for work on such imperiled, yet currently neglected species as:

1. Golden eagle: Fewer than five pairs remain in the Northeast, all probably in Maine (Status: State Endangered).

2. Sedge wren: No recent records of this recently common bird. (Status: State Endangered).

3. Box turtle greatly reduced numbers, possibly extirpated from Maine. (Status: State Endangered).

4. Grasshopper sparrow: Fewer than 25 pairs in Maine all at just 2 sites. (Status: State Endangered).

5. Black racer: currently known from just two sites, historically more abundant. (Status: State Endangered).

In closing, I urge you to implement and fund the Fish and Wildlife Conservation Act of 1980. The situation is of crisis proportions today in Maine and many states, It's reminiscent of the situation 50 years ago before Congress enacted the two existing Federal Aid Acts for Wildlife conservation. We are confronted with wildlife disappearing from Maine yet we're unable to provide remedies due to inadequate programs. Implementation of the Act can change that by providing the funding, the needed state-federal partnerships, and the needed coordination in addressing these new challenges in wildlife conservation.

Respectfully submitted,

William J. Vail
Commissioner

NORTH DAKOTA STATE HIGHWAY DEPARTMENT

600 East Boulevard Avenue
Bismarck, North Dakota
58505-0700

George A. Sinner, Governor
Walter R. Hjelle, Commissioner
Ray Zink, Chief Engineer

April 5, 1988

The Honorable Quentin N. Burdick
United States Senate
511 Hart Office Building
Washington, DC 20510

USE OF GASOLINE TAXES TO FUND PROVISIONS OF THE NONGAME ACT

Once again the Highway Trust Fund is under attack! The states are not receiving enough money from the trust fund to properly care for the highway systems already built. Please help me stop another raid on the trust fund for our highways sake.

My staff has just completed an extensive Highway Needs Study. They researched two questions. We wanted to know what the condition of our rural state transportation system would be in the year 2000 at the current funding level of $45 million per year. We also wanted to know how much additional money would it take to keep rural state highways at the current condition level in the year 2000. The results are startling.

The majority of the rural state highway system will deteriorate by more than a third of its present condition by the year 2000. To keep the current condition level, we will need to spend an additional $59 million per year on just pavements. Considering this huge deficit, the state cannot afford any more reductions in federal or state dollars.

We will soon be entering an era of reduced capability for moving goods and services in North Dakota. Our calculations show that by 1990, the majority of our roads will be classified in poor condition and we won't be able to stop it. To complicate matters, all indications are that federal dollars will be drying up and the local economy cannot support any large increases in taxes. North Dakota is in a dilemma and needs your help.

A January 1988 GAO Report - Resources, Community, and Economic Development Division, using gasoline taxes to fund the Nongame Act, supports the concept of user taxes to fund the Nongame Act. It is in the state's best interests to not let this happen. The trust fund cannot continue to fund non-highway related programs no matter what the cause. The nation's infrastructure is crumbling and it must be stopped.

If you have any questions on our study or my position on this matter please give me a call. I would be happy to have the opportunity to explain this dilemma further.

Walter R. Hjelle

WALTER R. HJELLE - HIGHWAY COMMISSIONER

DJ/kk

National Audubon Society

NATIONAL CAPITAL OFFICE 801 PENNSYLVANIA AVENUE, S.E. WASHINGTON, D.C. 20003 (202) 547-9009

TESTIMONY OF CYNTHIA LENHART

WILDLIFE SPECIALIST

NATIONAL AUDUBON SOCIETY

CONCERNING

REAUTHORIZATION OF THE FISH AND WILDLIFE CONSERVATION ACT OF 1980

SUBMITTED TO THE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

U.S. SENATE

APRIL 27, 1988

This testimony is submitted on behalf of the National Audubon Society, one of this country's oldest and largest conservation organizations. The Society was founded at the turn of the century to promote the welfare of colonial nesting birds. Since that time, we have expanded our scope to promote the preservation and wise management of all wildlife species. We are testifying today in support of reauthorization and funding of the Fish and Wildlife Conservation Act of 1980 (FWCA). The Society's 550,000 members are deeply interested in seeing the full implementation of a comprehensive, joint federal-state cooperative effort in wildlife conservation as envisioned eight years ago by Senator Chafee and the late Congressman John Forsythe.

The question on the table today is why the vision of the FWCA has been allowed to go undeveloped for so long. Does it address a real problem; does anyone care? The National Audubon Society would answer yes to both questions.

First of all, with regard to the constituency for this legislation, there is no doubt that a large one exists. Recent surveys indicate that over half of all adults actively participate in nonconsumptive wildlife-related activities. Birdwatching, wildlife photography, and similar outdoor recreational activities generate about $14 billion annually. There is clearly no lack of interest in the wildlife species that would most benefit from implementation of the FWCA. We believe the lack of vocal outcry for its passage is more a factor of ignorance than apathy, and must admit our part in a failure to adequately educate the public on the importance of this legislation to the conservation of wildlife nationwide.

In the FWCA, Congress recognized the pressing need for research on and management of all species of wildlife. There are some 3,500 species of vertebrate and invertebrate species in North America alone, of which some 90 percent are not used in a consumptive way by man. Compared to those species which are hunted, fished, or trapped, not much is known about the ecology and/or status of the majority of North American wildlife species. The FWCA provides a mechanism to advance our knowledge about the great diversity of life forms, the interactions of which are just beginning to be understood and valued.

Apparently, however, the need for this knowledge is not universally accepted by Congress, or the current Administration for that matter. The environmental community has been charged, again and again, to make the case for implementation of the FWCA -- to prove that we really do need to spend money studying life forms that may not be easily classified as huntable, edible, or otherwise beneficial or valuable to humans. We must, it seems, once again pull out a laundry list of disaster stories in the making to show that more research is needed to prevent a mass listing of endangered species in the near future. This task is, unfortunately, too easy. What follows is a look at five species in decline, five rather visible species -- there are undoubtedly many that may be headed for extinction without our knowing.

Three of the five species are among 30 migratory birds identified by the Fish and Wildlife Service in 1987 as species of special concern. This illustrious list represents those species for which FWS has some evidence of

unstable or declining populations in significant portions of their range during the past 10 to 15 years. State agencies' lists of bird species affected by population declines are considerably longer; California alone lists 61 species of birds as well as 36 mammalian species. Because California has compiled the most accurate and detailed data in this regard, we present three examples from that state.

The vermillion flycatcher, once common along the entire length of the Colorado River in California, and also in the Imperial Valley and Coachella Valley, has virtually disappeared as a breeding bird from most of its range. Not one pair has been observed to breed along the Colorado River (1977 survey). Only three localities contain a remnant population; of these, one consists of a single pair.

The fulvous whistling-duck was once described in the San Joaquin Valley as being "...really abundant, every little pond having two or three individuals and sometimes several little groups..." (Tyler 1913). Today, not a single bird can be found in this same area. The southern coastal areas and the southern end of the San Francisco Bay were also included in the fulvous whistling-duck's range but are now devoid of this species. The last remaining breeding population is in the Imperial Valley, where numbers fluctuate greatly from year to year and a serious general decline has been observed since the 1950's.

The Swainson's hawk was also an abundant resident of California in the past. Sightings of flocks over 100 birds in northern California and flocks of up to 600 birds in southern California occurred regularly as late as the 1950's. Today the coastal southern California population has been completely extirpated and only a few migrant birds have been reported in northeastern California. The largest remnant population consists of five to six breeding pairs that nest in the Sacramento Valley during the summer.

What is happening in California is merely a microcosm of the situation nationwide. Wildlife managers from all states report chillingly high rates of decline for many species but lack the financial and human resources to stem the tide.

The loggerhead shrike is a species that is native to all of the contiguous United States but today faces population declines so drastic that many states where it still occurs fear its imminent extirpation. Listed as a species of management concern by FWS in all regions but Alaska (which never was included in its range), the loggerhead shrike population is decreasing at a rate of nearly four percent each year. Over the past two decades some states report a drop in population as high as 90 percent and a few states, such as Massachusetts, suspect that the shrike has been extirpated from their state. At the present time not enough money is available to states to determine the exact cause of this decline and to implement measures to halt it.

The black tern is another species suffering dramatic losses. The annual rate of decline is over eight percent, a trend which can only lead to endangered species status. Northeastern states such as Pennsylvania, Maine, New York, and Vermont list the black tern as critically imperiled, imperiled, or rare. Other states such as North and South Dakota, Minnesota, Wisconsin, and Iowa are experiencing losses that suggest the black tern is likely to completely disappear in the near future.

As these species and others continue to disappear from much of their former range, the states and the federal government continue to limp along with a limited approach to research and management.

For their part, in recent years most states have begun following a broader spectrum of wildlife management objectives. Funding mechanisms have been established to implement more comprehensive fish and wildlife research programs, with emphasis on endangered species, but in some cases with attention paid to those species in the non-game, non-endangered void. Long-term, stable funding mechanisms have yet to be developed on the state level, however, and lacking federal programmatic leadership in this arena, many states may be inclined in the future to limit their focus to those species for which research and management dollars continue to pour in through the Pittman-Robertson and Dingell-Johnson funds.

In short, the states, with primary jurisdiction over much of the wildlife resource, need help to carry out their conservation mandates. Congress

recognized this need for federal leadership eight years ago, and it should be obvious that implementation of the FWCA is still appropriate -- now more than then, given the sorry status of much of our wildlife resource. At minimum, the federal government must do more to meet its obligations under treaty agreements with Canada, Mexico, Japan, and the Soviet Union, to help protect over 800 migratory bird species.

The Society recognizes the difficulties in developing an adequate, stable and politically viable funding mechanism for this legislation. We are intrigued, however, by a mechanism recently assessed by the General Accounting Office -- a redirected excise tax on fuels used in lawn and garden equipment. Use of this tax to fund the FWCA would appear to meet all necessary criteria. First, it would provide a sufficient baseline amount of money each year; revenue estimates range from $21.3 to $48.3 million annually. Voluntary mechanisms, such as the semi-postal stamp, could be used to augment this amount. Secondly, the tax would provide a stable funding source, which is important to ensure continuity and planning in state conservation programs. Finally, the tax is currently in place, and no otherwise un-taxed constituencies would be affected by its use for wildlife conservation.

In summary, the National Audubon Society strongly urges the Committee to reauthorize and, more importantly, fund the FWCA this year. We respectfully recommend you to give serious consideration to using the above-mentioned fuels tax as a funding mechanism for this important legislation.

1441 Shermer Road, Northbrook, IL 60062 (312) 272-0135

May 10, 1988

Honorable George J. Mitchell
Chairman/Subcommittee on Environmental
Protection of the Senate Committee
on the Environment and Public Works
458 Senate Dirksen Office Building
Constitution and 1st Street N.E.
Washington, D.C. 20510

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Red River Commodities, Inc.
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Dear Senator Mitchell:

This letter is submitted on behalf of the Wild Bird Feeding Institute (WBFI) to express our support for S.2272, a Bill to reauthorize the Fish and Wildlife Conservation Act of 1980 (the Act) for fiscal years 1989 and 1990.

At the same time, however, we wish to be placed on record as being opposed to funding of the Act through an excise tax on our industry.

WBFI is the trade association of the wild bird feed and related products industry. Our membership includes manufacturers and distributors of wild bird feed, feeders, houses and baths. Our members' products are used by consumers to enhance their enjoyment of the nation's wildlife. Because wild birds constitute a significant portion of the non-game species which the Act seeks to benefit, our members have a keen interest and resolve in seeing that the Act is reauthorized.

We are aware that it is essential in implementing the Act for the coming fiscal years that a proper funding source be identified. In this regard, we believe that a range of alternatives to an excise tax is available and should be explored. Among these might be:

* voluntary contributions from the public
* general revenues from the Federal Treasury
* the current system of state tax check-offs
* transfers from the highway trust fund
* a national endowment for non-game species

We think that one or more of these funding mechanisms should be appropriate and feasible to adequately fund non-game conservation.

After considerable discussion and deliberation, we continue to believe that any excise tax on our small industry is inappropriate for the following reasons:

* A tax on purchasers of wild bird products would be highly regressive. In the Fish and Wildlife Service's (FWS) Summary of the Report and Recommendation on Funding Sources to Implement the Fish and Wildlife Conservation Act of 1980, FWS concluded: "Thus, lower income and elderly individuals would pay a disproportionate share of a potential tax on these items."

* Such a tax would produce insufficient revenue to adequately fund the Act.

* It would be difficult if not impossible to define what constitutes wild bird feeding products.

* Collection of the tax would be extremely difficult because many of these products are produced on small farms, in country stores, and by a growing cottage industry of manufacturers.

* Those who feed wild birds as well as those who produce products for this group are already contributing their share to non-game conservation.

Thank you for giving us the opportunity to be heard. We are looking forward to working with you and the subcommittee to gain reauthorization of the Fish and Wildlife Conservation Act of 1980. We hope that any funding legislation will not include an excise tax on our industry.

Yours truly,

Virginia L. Duncan

Virginia L. Duncan
President
Wild Bird Feeding Institute

cc: The Honorable Quentin N. Burdick

THE WILDERNESS SOCIETY

TESTIMONY OF WILLIAM C. REFFALT ON BEHALF OF THE WILDERNESS SOCIETY SUBMITTED TO THE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION, OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, UNITED STATES SENATE, CONCERNING REAUTHORIZATION, FUNDING AND IMPLEMENTATION OF THE FISH AND WILDLIFE CONSERVATION ACT OF 1980.

On behalf of The Wilderness Society's 220,000 members, I would like to thank the Subcommittee for the opportunity to provide this testimony on the importance of the Fish and Wildlife Conservation Act of 1980 and the need for reauthorization, and the need for funding the act.

The Fish and Wildlife Conservation Act of 1980 was passed by Congress to provide grants to the states for developing comprehensive plans for the conservation of fish and wildlife and for implementing those plans. The need for such comprehensive plans is clear: of the over 3,000 species of wildlife in the United States that are not hunted or fished, over 190 species are already listed by the USFWS as endangered or threatened (Inkley et al 1988). Without comprehensive planning to identify indigenous species, inventory their populations' size, range, and status, quantify and rate the quality of habitat, determine trends in status, and list (in order of priority) the conservation actions needed, our nation will continue simply to add species to the endangered and threatened species lists while doing nothing to prevent the need for such listings. Section 4 of the Act was written to encourage states to undertake just such planning.

Our ignorance of the status of the majority of wildlife in this country is overwhelming, and what we do know is not encouraging. In 1982, the U.S. Fish and Wildlife Service listed 28 migratory bird species whose populations were unstable or decreasing regionally or nationally; by 1987, the Service's list had grown to 30 species with 3 species from the original list being removed because their populations had become endangered or threatened. Unlike migratory birds, we do not even know the status of most resident wildlife species because equivalent information does not exist for mammals, reptiles, amphibians, and fish; only eight states (Oregon, California, New Mexico, Texas, Missouri, Minnesota, Illinois, and Colorado) are considered to have done extensive survey and monitoring work on these groups (Cerulean and Fosburg 1986).

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Yet while federal and state wildlife management agencies spend less than 10% of their resources on the over 90% of wildlife species considered to be "nongame" (Kelly 1986), surveys have shown that increasing numbers of Americans participate in nonconsumptive wildlife-related activities (Lipscomb 1987; Shaw and Mangun 1984), and many consider wildlife to be an important part of their heritage (Kellert 1979, 1980a, 1980b). In fact, in 1985 110 million Americans--over half of all Americans over 16 years old--actively participated in nonconsumptive wildlife-related activities (Lipscomb 1987).

The Fish and Wildlife Conservation Act offers the opportunity to address the needs of these increasingly important and threatened animals in a comprehensive manner. The Act auth- orizes federal funds to be provided to each state as an incentive to develop comprehensive plans to prevent the depletion of indigenous wildlife. The development of comprehensive plans for each state would allow the general public, the state and federal fish and wildlife agencies, and the Congress to fully assess the status of wildlife in the United States and to make sound decisions about additional appropriations for conservation actions. Currently, only 23 states are developing conservation plans as envisioned by the act (Lambertson 1988, as cited in Coffin 1988).

Unfortunately, in the eight years since passage of the Act, the Administration has never requested, and Congress has never appropriated, any funding for it. We believe appropriations under the Act are crucial to provide the incentive necessary for state fish and wildlife agencies to shift their attention toward a holistic, ecological approach to wildlife management. Many scientists and managers have come to recognize that the limited, species-oriented programs that have dominated wildlife management are no longer sufficient to meet the threats posed to wildlife by toxic contamination, habitat destruction, and other human activities, but they have been unable to break away from those traditional approaches and traditional constituencies. The planning program outlined in the Fish and Wildlife Conservation Act of 1980 would be a first step toward initiating a new management orientation.

RECOMMENDATION

The Wilderness Society strongly recommends that Congress reauthorize the Act and that the authorizing committee vigorously seek Appropriations Committee action to appropriate $5 million over two years to be used solely to implement Section 4 of the Fish and Wildlife Conservation Act. Section 4 requires the development of comprehensive conservation plans that do the following:

-- inventory nongame fish and wildlife that are valued for ecological, educational, esthetic, cultural, recreational, economic, or scientific benefits by the public;

-- determine the size, range, and distribution of populations;

-- identify the extent, condition, and location of significant habitats;

-- determine actions needed to conserve identified species and their significant habitats;

-- establish priorities for implementing needed conservation actions;

-- provide for regular monitoring of identified species and the effectiveness of conservation actions;

-- provide for public participation in plan development;

-- provide for appropriate consultation among state and federal agencies in order to minimize duplication of efforts and to ensure that the best information is available to all agencies.

Reauthorization and a two-year, $5 million appropriation would allow for an average of $50,000 to be disbursed to each state each year for development of a plan. The total funding for each state plan of $123,000 over the two years (including state matching funds) would provide a work force sufficient to develop adequate initial plans.

This proposal, to provide incentives for all states to develop comprehensive conservation plans by initially funding only Section 4 of the Act, will enable all 50 states to reach a comparable level of planning and allow future decisions about implementation of recommended projects to be rational, equitable, and reflective of national and statewide priorities for fish and wildlife management.

Although our recommended plan of action is hardly complex, we fully appreciate the difficulties its implementation presents. Reauthorization of the Fish and Wildlife Conservation Act of 1980 is, however, the basis for further progress. Obtaining the appropriations and completing the plans will require substantial effort and cooperation among many interested parties.

Achieving the goal of all these efforts is truly important and necessary if we are to begin to prevent endangerment rather than devoting such considerable resources to fending off extinction. This Act is a vital first step in the right direction. The Wilderness Society urges that it be reauthorized-- and implemented.

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THE WILDLIFE SOCIETY
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April 25, 1988

The Honorable George J. Mitchell, Chairman
Subcommittee on Environmental Protection
SD-458 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Mitchell:

The Wildlife Society appreciates the opportunity to present our comments and recommendations regarding the reauthorization of the Fish and Wildlife Conservation Act of 1980. The Wildlife Society is an international association of professional wildlife managers working in the public and private sectors to promote wise stewardship of our natural resources. As nongame species constitute a substantial portion of our nation's natural resources, The Wildlife Society urges the reauthorization of this Act with an authorization level of at least $100 million per year and an initial appropriation of at least $80 million to provide matching funds necessary to implement state nongame programs.

According to an analysis conducted by the General Accounting Office, federal gasoline taxes on fuel used in lawnmowers and other outdoor equipment has the potential to raise $21 to $48 million per year. Serious consideration must be given to this and other potential funding sources. Identification of a stable federal funding mechanism is imperative if this legislation is to accomplish the purposes for which it was established by Congress.

Please enter the attached testimony into the official record of the April 27 hearing regarding the reauthorization of the Fish and Wildlife Conservation Act of 1980.

Sincerely,

Harry W. Hodgdon
Executive Director

Enclosure

REAUTHORIZATION OF THE FISH AND WILDLIFE CONSERVATION ACT

BACKGROUND

Historically, most funds for wildlife management programs have come from hunting licenses and from excise taxes on certain hunting equipment, so wildlife programs have focused on species of interest to hunters. While existing game management programs are desirable and necessary, they do not address the needs of the majority of wildlife species, commonly called nongame. The word "nongame" has no intrinsic ecological significance, but is a term of convenience, useful primarily to identify wild vertebrate animals that are not ordinarily taken for sport, fur, or food. These species constitute 90% of the wildlife resource. Well-funded programs are needed to manage all wildlife, including the many nongame species that have not been addressed in existing programs.

Although the Fish and Wildlife Conservation Act of 1980 authorized federal funding for nongame wildlife programs, no appropriations have yet been made. The 1980 Act encouraged states to develop comprehensive wildlife management programs and offered matching federal funds. But after eight years, states still must raise all revenue themselves. State funding mechanisms, praiseworthy as they are, have been designed to complement anticipated federal funds, not replace them. Average state nongame revenue is insufficient, and nongame programs need federal funds to be most effective.

The legal precedent for federal funding of nongame management has been established already; there are 757 nongame migratory bird species for which the U.S. Fish and Wildlife Service has responsibility under the Migratory Bird Treaty Act that currently are not being managed adequately. Federal responsibilities for conserving migratory birds are most appropriately met with the aid of federal funds, which the Nongame Act can provide. But the Act also recognizes that nongame wildlife needs cannot be addressed adequately under a single federal conservation plan because many nongame species do not migrate and should be managed at a state level, where localized conservation plans can be designed to meet the needs of these species. Therefore, federal funds through the Nongame Act are required to both manage migratory nongame wildlife resources and assist states to more effectively manage resident wildlife.

WHY SUPPORT NONGAME WILDLIFE?

Nongame wildlife constitutes a valuable but often underemphasized natural resource. Although "nongame" refers specifically by law to vertebrate species, invertebrates may be considered nongame at State discretion. The ecological, scientific, recreational, educational, and aesthetic values of many invertebrates are also important and merit serious attention in nongame plans. The benefits to be gained by protecting and maintaining the total nongame resource are substantial and numerous, for nongame management can promote healthy urban, rural, or wilderness ecosystems that are essential for the well-being of wildlife and people. Urban residents and youth will benefit particularly from urban wildlife programs that increase the availability and diversity of nongame habitats and species, and wildlife recreation, already enjoyed by over half the U.S. population, can be further enhanced. In this period of economic recovery, the commercial values of nongame wildlife should also be considered, for nongame management can have substantial positive impact on the wildlife-associated products industry and on property values. Finally, nongame programs can help ensure the continuation of wildlife benefits by monitoring speices to prevent population decline and possible permanent loss of valuable wildlife resources. The numerous benefits of nongame wildlife clearly demonstrate the need for an effective federal nongame program.

Necessity for a Healthy Ecosystem

When part of an ecosystem is disturbed, as has occurred worldwide already, the entire system is affected. Although we may not always see or sense the effect on people, it undoubtedly exists. A well-balanced ecosystem offers biological stability and supports healthy, sustained populations of plants and animals (including humans). Nongame management programs can help ensure this balance, and wildlife and people alike will benefit when the integrity of ecological relationships is restored and maintained. The effects of human activites on ecosystems can be ameliorated--people and wildlife can coexist in a high-quality environment in the future, and nongame management can help encourage progress toward that goal.

Benefits for Youth

A large demand exists among our nation's youth for information about and exposure to wildlife. In fact, one study found that 92% of the schoolchildren surveyed wanted to learn more about wildlife (Pomerantz 1977). Nongame management programs that include urban wildlife provisions can help meet this demand by increasing the abundance and diversity of wildlife in urban areas and thus enhancing wildlife recreational and educational opportunities. Perhaps more importantly, children raised where they had contact with wildlife and the complex ecosystem that supports it are physically, mentally, and socially more competent than children reared in homogenous, sterile urban environments (Geist 1975). As over 70% of the U.S. population resides in urban areas, the potential benefits for the majority of our nation's youth from urban wildlife programs are tremendous.

Benefits for Urban Americans

At least 80% of the U.S. population is expected to live in urban areas by the year 2000, but urban wildlife is often neglected. A 1980 survey indicated, however, that 54% (89 million) of Americans age 16 or older enjoyed wildlife around the home (Shaw & Mangun 1984). This interest clearly demonstrates the potential for formal urban wildlife programs that existed in only six states in 1983 (Lyons & Leedy 1984). Indeed, one study concludes that availability is the most important factor determining whether or not people participate in wildlife-associated recreation (Shaw & Mangun 1984). By increasing the availability and diversity of wildlife in urban residential areas, nongame programs can enhance wildlife recreation and improve the quality of human life in these areas as well as reduce open space maintenance costs and increase property values. Moreover, urban wildlife programs may help educate a majority of people in the basic principles and values of wildlife management, thereby stimulating greater support for the full range of national and global wildlife programs (The Wildlife Society 1985). Aesthetically, recreationally, economically, and intellectually, urban citizens will benefit from nongame management programs that include urban wildlife plans.

The Wildlife Society has developed recommendations for the establishment of urban wildlife programs within state agencies and calls attention to the need for funding to implement these programs.

Recreational Benefits

Over one-half of America's adult population (109.7 million) enjoy nonconsumptive wildlife activities according to the results of the 1985 National Survey on Fishing, Hunting and Wildlife-Associated Recreation. In fact, the preliminary results of this survey found urban wildlife enjoyment to be the fastest growing wildlife-related activity, with 105.3 million people participating in urban wildlife-related activities around their homes. This includes 82.5 million people feeding birds, 63.6 million observing wildlife, and 18.1 million engaging in wildlife photography. In contrast, the number of people participating in hunting declined from 17.5 million in 1980 to 16.7 million in 1985. Studies conducted by individual states also support findings of public interest and support for urban wildlife and the need for urban wildlife programs. For example, studies in Missouri found that 76% of the respondents enjoyed viewing wildlife on their property, while only 4% disliked wildlife. None of the people surveyed actively discouraged wildlife presence. Additionally, 80% of the Missouri's urban residents placed food out for wildlife. This substantial citizen interest in wildlife demonstrates the need and potential for nongame management programs that can increase the availability of wildlife-associated recreation in both urban and rural areas. Individual states also should consider exercising the 1980 Act's discretionary clause concering invertebrates, for some highly visible invertebrates, particularly butterflies, are of growing interest to the public and can enhance the recreational benefits of nongame wildlife.

Economic Value

Because game species are generally those that are assigned distinct economic value, "nongame" might easily be confused by some with "non-economic." But nongame wildlife does have substantial economic value as well. For example, preliminary results of the 1985 National Survey on Fishing, Hunting and Wildlife-Associated Recreation found that $14.8 billion were spent on non-consumptive wildlife related activities in 1985. In 1974 bird-watching accounted for between one-half and two-thirds of the dollar sales of binoculars, and sales of gift books about birds totaled slightly over $4 million. Furthermore, the total direct expenditure in 1974 for the enjoyment of nongame birds alone was $500 million (Payne & DeGraaf 1975). The U.S. Forest Service has developed a concept known as "wildlife-fish user days" (WFUD), which is an estimate of the amount of money an individual or group of individuals would spend in 12 hours of pursuit of an animal. Nongame is estimated to be worth $23 per WFUD, while the value of other game (excluding big game) ranges from $16.56 to $19.32 per WFUD (U.S. Forest Service 1986). Habitats associated with nongame wildlife also have economic

value. Research by the U.S. Forest Service has revealed that trees enhance the value of a property by as much as 20% and increase the value of architecturally similar houses by an average of 5 to 10% (U.S Forest Service undated). By providing widespread knowledge and availability of wildlife and its habitat, nongame management programs can enhance wildlife recreation opportunities, indirectly promote increased use of products such as wild bird seed and recreational supplies, and increase property values in cities and suburban areas.

Prevention of Species Endangerment

Once a species is classified as threatened or endangered under the Endangered Species Act, steps are initiated to rebuild the population to a self-sustaining level. But these efforts are not always affordable or successful. The need for an improved approach to prevent extinction is clear, for species are disappearing faster today than ever before (Torres, Bissell, Craig, Graul & Langlois undated). Human impact in the natural world has caused an increased rate in extinction, and human intervention can help reverse this trend. Although existing endangered species are specifically excluded from aid through the federal Nongame Act, programs under the Act can indirectly prevent species endangerment by serving as preventive medicine. Through monitoring species and identifying declining populations before they reach a critical stage, nongame management programs can reduce the extensive costs of species recovery and the rate of additions to the endangered species list. Efforts can then be focused more effectively, through the Endangered Species Act, on those populations that are already threatened or endangered. Additionally, because habitat destruction is the major cause of decline in wildlife, nongame plans that conserve habitats as well as monitor species populations can reduce the threat caused by loss of habitat.

A final concern involves the scientific benefits of wildlife, for when a species becomes extinct, we lose whatever scientific, ecological, medicinal, or other values that species may have provided. Because we do not fully understand these values for most species, we must strive to maintain viable populations of all species. Nongame management programs can help accomplish this end by addressing the needs of the majority of wildlife species.

Funding Needs

A recent survey was conducted by the National Wildlife Federation to assess the current status and funding needs of state nongame programs (National Wildlife Federation 1988). Based on a comprehensive telephone and written survey of all 50 state wildlife agencies during 1987, they found that while states had spent about $43 million on their nongame programs for FY 1987, at least $88 million in additional funds (on an annual basis) would be needed for the states to fully implement their nongame programs. Due to the 3:1 matching of federal to state dollars mandated by the Nongame Act, a congressional appropriation of at least $66 million is desirable for adequate funding of state nongame programs.

Conclusions

The American public can reap substantial recreational benefits from an effective federal nongame program. Increased availability and diversity of wildlife, provided through nongame urban wildlife programs, will serve the particular demands of urban residents and youth, but all Americans will enjoy the enhanced recreational opportunities that can result from a healthy ecosystem. Man has a tendency to unbalance ecosystems, and species and habitats are declining faster than ever before. Nongame management programs can make a large step toward correcting the balance and helping ensure a healthy environment, whether urban, rural, or wilderness, but unless a stable federal funding source is identified and implemented, these programs face an uncertain future. At the present time, over 90% of the funds available for wildlife are directed toward game species. Although these funds are needed for traditional wildlife management programs that benefit a wide range of species, nongame species that constitute 90% of all wildlife require much greater support than they now receive. The ecological, recreational, aesthetic, educational, scientific, economic, and cultural benefits of nongame wildlife have been established and recognized. Although helpful legislation does exist for nongame programs, it is inadequate because it lacks a stable federal funding source.

Recommendations

The first priority for nongame must be reauthorization of the 1980 Fish and Wildlife Conservation Act. The Wildlife Society is recommending an immediate two-year basic reauthorization at an annual level of $100 million, with an initial appropriation of $50 million to develop comprehensive state conservation plans. Once completed, these plans will require the full appropriation of $100 million per year in federal funds for program implementation and maintenance (U.S. Fish and Wildlife Service 1984).

The Wildlife Society also is recommending additional research into new funding possibilities. The off-budget fuel tax on gasoline for lawnmowers, and other outdoor equipment requires further study. This funding source has the potential to raise $21 to $48 million per year according to the General Accounting Office (GAO 1988). Due to the extensive funding needs of nongame programs, more than one funding source may be necessary.

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100TH CONGRESS
2D SESSION

S. 2272

To authorize appropriations to carry out the Fish and Wildlife Conservation Act of 1980 for fiscal years 1989 and 1990.

IN THE SENATE OF THE UNITED STATES

APRIL 12 (legislative day, APRIL 11), 1988

Mr. MITCHELL (for himself and Mr. CHAFEE) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To authorize appropriations to carry out the Fish and Wildlife Conservation Act of 1980 for fiscal years 1989 and 1990.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 11 of the Fish and Wildlife Conservation Act of 1980 (16 U.S.C. 2910) is amended by striking "and 1988." and inserting in lieu thereof "1988, 1989, and 1990.".

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